

**NEW**

THE  
**PORSCHE  
911 RS BOOK**

In association with  
**Total  
911**

**991  
GT3 RS**  
driven  
& tested



Showcasing every generation of 911 Rennsport 1973-2015



Welcome to...

# THE PORSCHE 911 RS BOOK

Few 911s can stir the emotions in quite the same way as a fabled Rennsport. Ever since the 2.7 Carrera RS in 1973, Porsche has mastered the art of crafting a beautifully accomplished race car still fit for that drive home on the public road afterwards. It's a legacy that few other sports car manufacturers have managed to execute with similar aplomb – certainly over such a sustained period and with just the one ever-evolving, ever-trailblazing car. Make no mistake then: nobody does it better than Weissach.

Key to the 911 Rennsport's success has been its stubbornness to deviate from the concept under which it was created some 42 years ago. Lightweight, focussed, and with breathtaking performance, an RS of any generation is a halo car that many admire but few can afford. A 911 RS is simply the ultimate Porsche.

This all-new 911 RS bookazine is packed with thrilling drives at the wheel of every single generation, complemented by exhilarating head-to-head tests and group battles in a bid to work out which really is the very best 911 Rennsport to roll off the factory floor at Stuttgart. Of course, the race track is the undisputed home for any 911 RS, so we've also gathered an unrivalled selection of the very best Porsche Rennsports ever to take to a race – and win.

And, if you're in the school of thought that it's possible to better the car produced by Porsche engineers at the factory, you'll relish our in-depth tests with some of the world's best modified Rennsports, before we sit down with two Porsche greats to tell us about their infatuation with Weissach and racing the fabled 911.





# THE PORSCHE 911 RS BOOK

Imagine Publishing Ltd  
Richmond House  
33 Richmond Hill  
Bournemouth  
Dorset BH2 6EZ  
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**Publishing Director**  
Aaron Asadi

**Head of Design**  
Ross Andrews

**Editor**  
Lee Sibley

**Senior Art Editor**  
Greg Whitaker

**Designer**  
Perry Wardell-Wicks

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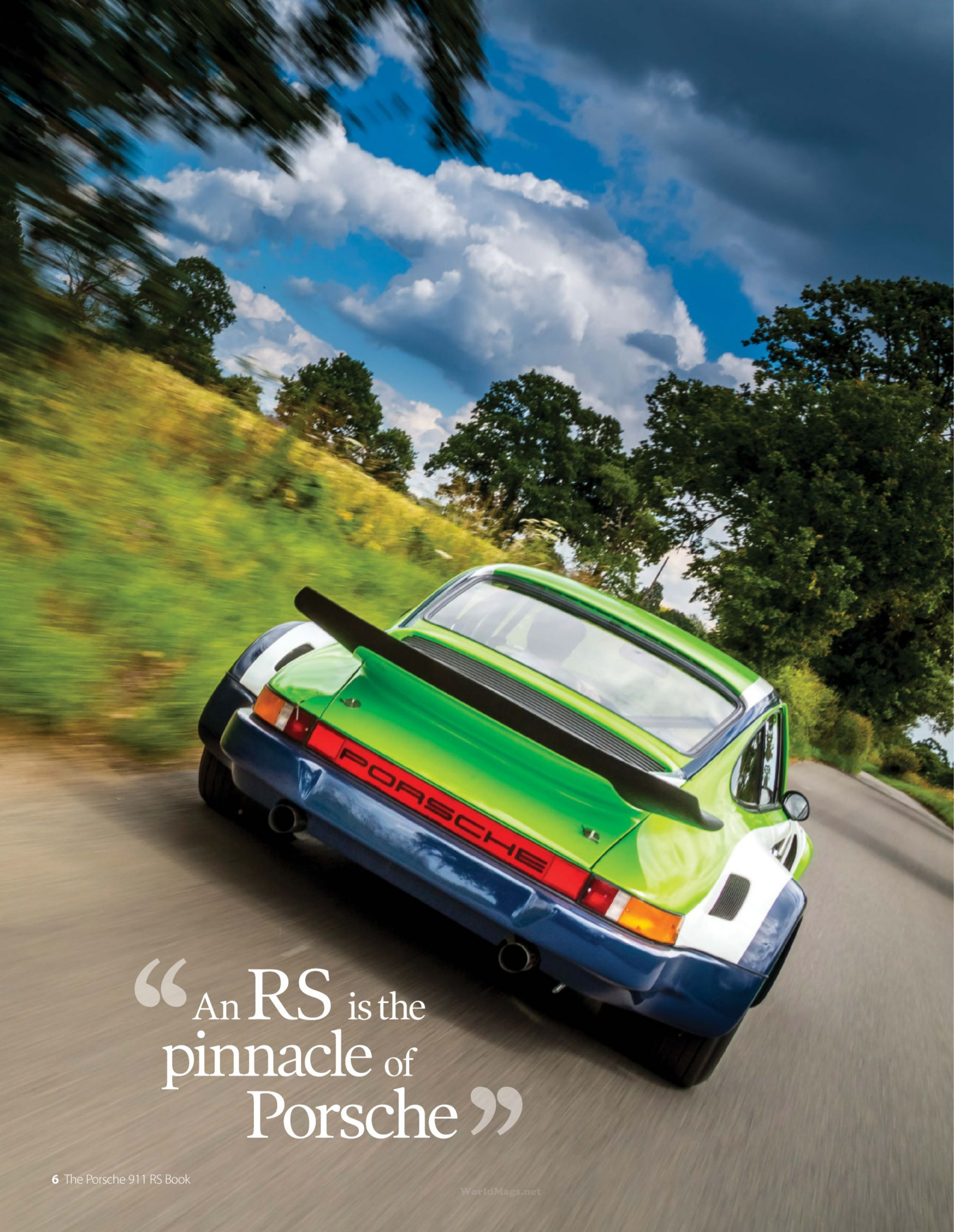
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THE PORSCHE MAGAZINE  
book series





“An RS is the  
pinnacle of  
Porsche”

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“ More  
than ever before, the  
RS looks like it's been  
de-numbered after an  
endurance race ”



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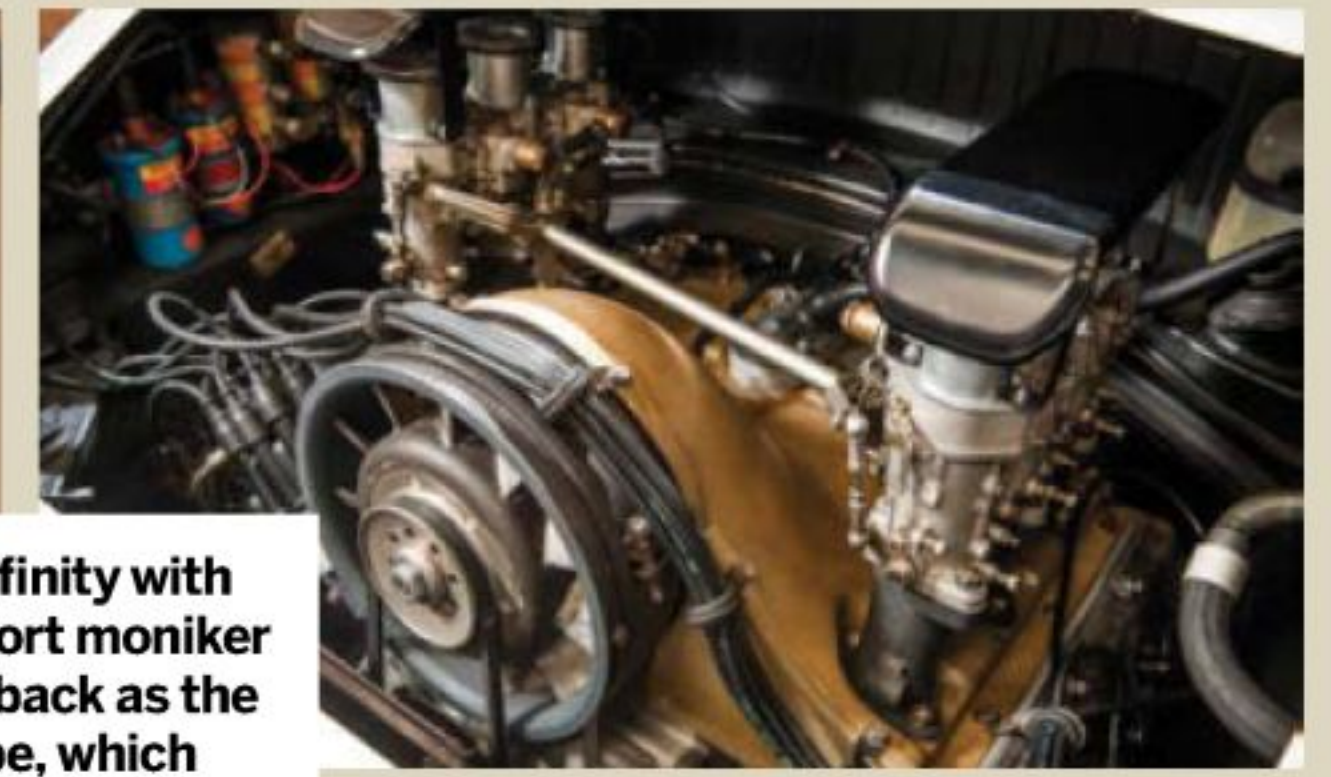


# THE HISTORY OF RENNSPORT

We investigate how the most famous moniker  
in the automotive lexicon has evolved  
over the last 60 years

Written by **Kieron Fennelly** Photography by **Total 911 archive & Porsche AG**





The 911's affinity with the Rennsport moniker goes as far back as the 'R' prototype, which was powered by a race-derived engine (from the 906) and weighed less than even a 911T



**T**he lineage of Porsche's Rennsport models is as long as it is illustrious. Porsche is not alone in using RS to delineate its most sporting models, but unofficial rights to the RS title must surely belong to Zuffenhausen, which has applied 'RS' to competition-oriented production models almost since it began building cars.

The first RSs were the 1500 Porsche Spyders: the 1954 1500 RS was a mid-engined racer, a genuine production sports car. It was involved in the most famous road accident ever involving a Porsche. The name was retained through the RS 718 and the RS 60 and 61 which in its final seasons, 1962-3, raced with the 2.2-litre flat eight. For 1964, Porsche introduced the Typ 904 GTS, which had an entirely different design philosophy; the RS thus went into hibernation.

Though the label would not be reappearing for almost a decade, the model that would effectively create the future 911 RS template soon emerged in the shape of the 911 R. The stock 911 was pressed into competition almost as soon as it became available in late 1964, a works entry finishing fifth in the 1965 Monte Carlo Rally. The 911S appeared in 1966 and by now competition versions of the 911 were producing 175 to 180 horsepower. It was at this time that Ferdinand Piëch became technical director at Zuffenhausen. A brilliant and driven engineer,

Piëch's energy and determination would lead to the astounding 917, arguably the greatest racing car of all time. Porsches were always light, but Piëch had a real fixation with weight and kept a set of bathroom scales on his desk. At his behest, a 911 shell underwent a comprehensive weight-reduction programme: non-load-bearing parts were drilled, perspex replaced glass, and GRP wings, doors, bumpers and bonnets replaced mild steel items. With an interior reduced to the bare minimum, the R weighed a mere 830 kilograms, some 220

**“The 2.7 RS was an immediate hit... a legend was born”**

kilograms less than its 911T starting point. Fitted with the 210-horsepower engine of the 906 Carrera 6, it was also extremely potent and in its few track excursions saw off opposition with twice the cubic capacity. But it remained a prototype: despite Piëch's and von Hanstein's protestations, the sales department refused to contemplate having to sell the FIA homologation minimum of 250 necessary to enter the production sports-car class where clearly it would have swept all before it. The R's potential was unrealised, but its genetics lived on within the Porsche 911 dynasty. ➔

## “The model that would effectively create the future 911 RS template soon emerged in the shape of the 911 R”

Dr Ernst Fuhrmann returned to Porsche in 1971, invited back to give the company a new sense of direction as well as non-family management. Fuhrmann knew Porsche well: he worked at Zuffenhausen before, designing the immensely potent quad-cam flat four. Although his ultimate ambition now was to replace the 911, he realised that was very long-term and Porsche had to promote the 911 for at least another five years. Effectively a shop window for Porsche as the 917 campaigns in Europe and the CanAm were, the company could not sustain that level of expenditure. Porsche had been excluded from racing the 911 as a touring car by the FIA, but Fuhrmann saw a possibility in the GT class that the FIA could not block and when he was promoted from technical to managing director in 1972, he immediately fired up the project which would spawn the RS 2.7. A 911 works prototype raced in Group 5 that summer, its performances generating valuable information on what the 911 needed to compete – and win – in GT racing.

Aerodynamicist Norbert Singer, that canny interpreter of FIA rules, was put in charge and the result was a 911 reduced to 900 kilograms thanks to thinner sheet metal, glass fibre bumpers and rear deck, special thin glass and that famously stripped interior, bereft of rear seats, sound deadening and door furniture, the stock seats removed in favour of a pair of lighter, thinly padded bucket affairs. Suspension changes involved a far stiffer anti-roll bar and lighter Bilstein dampers. Still within FIA parameters, the rear arches were widened to accommodate 7-inch rims. Under the bonnet was the latest flat six, bored out for the third time in five years to 2,681cc. Porsche’s testing quickly established that this 911 could corner significantly faster than any previous 911 and a combination of the front lip first tried on the 2.4S and an angled rear wing, which was immediately dubbed the Bürzel (ducktail), finally endowed it with the high-speed stability it had always lacked. The ducktail alone became an everlasting design icon.

Though it was designed with cost and ease of production in mind, the sales department again balked at selling this special. However, Fuhrmann brooked no objections and production went ahead in October 1972 of the 500 units necessary for homologation. Called the Carrera 2.7 RS, the would-be production racer was exhibited at Paris in October. It was priced only DM 1,500 above the 911S and for a further DM 2,500, the buyer could have the Touring version, a dealer-fit option with a fully upholstered cabin and steel bumpers. With its optional door graphics and distinctly racy stance, the Carrera 2.7 RS was an immediate hit: the initial 500 sold out straight away and Porsche had to make more to meet demand, building a further 1,090. A legend was born: owners drove their 2.7 RSs straight to the track and this 911 would enjoy a circuit career that only started to wane in the 1980s.

In September 1973, Porsche switched to G series production and the following year an RS model, the 3.0-litre, appeared like its predecessor, pioneering a larger engine which would later power all 911s. Porsche managed to circumvent homologation rules with the 3.0, describing it as a variation of the 2.7 when in fact it was a new model, so only 109 of this model were built. Half were then converted from the 230-horsepower road car to the uncompromising 300-horsepower RSR, which ruled the GT-class roost until the brutal 934 Turbo



**Clockwise from top left** 2.7RS was famously more successful than Porsche originally planned; later 964 3.8 is an exceptionally rare Rennsport with just 55 units made; 964 America was an RS in name only; SC RS is an oft-forgotten successor to the 3.0RS



arrived. The relatively obscure 3.0 RS is held to be a better car than the 2.7 with more balanced handling and more usable torque and it is a pity that Porsche saw no advantage in making it in greater numbers.

There would be almost a 20-year gap before the RS badge reappeared on a production 911. After the 3.0 RS, Porsche launched the Turbo and with the 934 and 'silhouette' 935, the company had the visibility in GTs Fuhrmann had sought, these blown 911s still winning races into the next decade. He issued an internal edict to the effect that 911 development would be wound down prior to the model's withdrawal in 1982 or 1983. This direction was of course quickly reversed by Peter Schutz when he took over at Zuffenhausen in 1981, but during Schutz's tenure, Porsche would concentrate on high-tech projects such as the 959 and a sub-959 Turbo 911, while the motorsport focus was on the 956 in Group C. For production sports car competition, the 911 was largely forgotten. This was a frustration to people like Jürgen Barth who had given the Alméras brothers much backdoor assistance with their 1978 Monte Carlo-winning 3.0. Under Schutz, Barth obtained permission to develop an SC RS for client competition. He and Kussmaul lightened a Turbo shell in which they fitted a 280-horsepower 3.0-litre; the result was an extremely potent 1,050-kilogram 911, the Typ 954, which allied with the Turbo's rear suspension

and 917 brakes and revving freely to 7,600rpm, was a superbly responsive and sweet-handling 911. Homologated in Group B, it won numerous regional rallies and three Middle East championships. Only 20 cars were built and when Group B ended, the very rare SC RS passed into history, emerging from obscurity only in recent years.

Next in the RS series is a 911 second in renown only to that original 2.7 RS. For the newly inaugurated 1990 Carrera Cup the company made a homologation model, called, logically enough, the 964 RS. Built in significant numbers (around 2,000), the 964 RS was a classic of the Porsche lightweight school. Roland Kussmaul systematically removed heavy items like electric windows, seats, mirrors and central locking, reviving instead the 2.7 RS's door pulls. The cabin was bereft of a sunroof, rear seats, sound deadening and even underseal. Thin carpeting covered the floor and the space in the rear. The shell itself was seam as well as spot welded for rigidity, and although standard gauge steel was used, the bonnet was in aluminium and thin glass was used except for the windscreen. The engine was the standard 3.6-litre, remapped to produce a claimed 260 horsepower (in reality around 270) and drove through the Cup car's close-ratio gearbox and limited slip differential. A sintered metal clutch and single-mass flywheel were an oft-specified option and power steering ➔



**“The 964 RS was a classic of the Porsche lightweight school”**



## “During Schutz’s tenure, Porsche would concentrate on high-tech projects”

was deleted (though fitted to UK-bound models). With its suspension lowered by 55 millimetres, the RS 964 looked splendidly menacing on 17-inch hollow-magnesium wheels, 7-inches wide at the front and 9 behind. Weighing 125 kilograms less than the stock C2, its response was electric: it provided an intense, focused driving experience. Still, the bone-hard ride delivered by the solid-balled jointing of the suspension to the body was controversial, as was the general lack of refinement and the RS 964 only really came into its own with the rise of track days ten years later. Since then its value has risen to the point where fewer and fewer are actively campaigned as auction prices for the best examples approach £250,000. The rarer Touring version, again picking up the 2.7 RS theme with a fully equipped cabin, is scarcely less valuable despite weighing a good 60 kilograms more.

The 1993 964 3.8 RS, like the 3.0 RS, cannot really be considered a production RS, as it was produced in a similar tiny volume. Bored out to 3,746cc, it

used the wide Turbo body and essentially the RS 964’s suspension but with larger brakes and wheels. An aluminium bonnet and GRP rear spoiler helped to bring its weight down to 1,210 kilograms. Carburation was through individual throttle bodies and in road-legal specification, the 3.8 produced 300 horsepower. Its intention was clearly as a basis for the 3.8 RSR to compete in the newly established and growing BPR GT series.

This was also the *raison d’être* of the 1995 993 RS 3.8-litre. Unlike its 3.8 predecessor, which appeared very late in the life of the 964, the 993 RS enjoyed a production run of some 1,100 units. Pioneering Varioram induction, the latest RS was both smoother and sleeker than its 964 RS predecessor. It sat on wider Speedline rims with a lowered suspension and a specific spoiler, though it used the narrow body. The cabin was trimmed like the 964 RS’s, but despite the usual electric deletions, the RS weighed only 70 kilograms less than the 993 C2 if optional power steering was specified. Not as

harshly sprung as its predecessor, the 993 RS was quickly recognised as the last and best non-turbo air-cooled 911 and more went to collectors than to circuit devotees.

When the 996 GT3 was launched in 1999, this model appeared to be taking over the 911 RS role, but then Porsche created a new market segment with the 2004 996 RS, visually distinguished from the stock 996 GT3 by the blue or red flash on its sides. 50 kilograms were saved thanks to a bonnet, rear wing and window in polycarbonate. A stiffer, lower suspension was fitted and the engine modified with the Cup car’s intake and exhaust ports adding 20 horsepower, though still homologated at the 381 horsepower of the standard GT3. Only 300 were built, of which a third came to the UK. The austere RS had effectively taken over the previous role of Clubsport RS, but with both an uprated engine and suspension. Devoid of PSM, the 996 GT3 RS was really too raw for road use, but it represented an emphatic statement from Porsche that despite the nine-year wait, it had not forgotten the meaning of that RS badge.

Subsequent 997 GT3 RSs lost nothing of the lightened, pared-down racer fans had come to expect, but Porsche intelligently recognised that changes to the chassis, notably the introduction



**Clockwise from top left**  
The 993 RS was the pinnacle of air-cooled Rennsport, but the switch to water-cooling gave birth to a whole new era with the now fabled 911 GT3 RS variants



of active damping allowing a more compliant yet track-adjustable ride, would widen the appeal of this niche model. PSM was now fitted but it could be switched off, invoked only if the brakes were applied. If the 996 RS followed the old recipe, the 997 version, priced £17,000 above the base GT3, represented rather more sophistication. It now used the wide, stiffer C4 shell and a race-developed polycarbonate rear body that helped reduce kerbweight to 1,375 kilograms. A Clubsport option added race harnesses, a fire extinguisher and a roll cage to the specification.

'RS' now signified that performance enhancement came as much from suspension and aerodynamics as from weight savings. The Gen2 997GT3 RS sported a Cup-developed 3.8-litre engine that gave 450 horsepower, a 35-horsepower improvement and more usable low speed torque. The 15 per cent price difference over the stock GT3 again caused scepticism, but Porsche knew its market and that these subtle dynamic upgrades mattered to well-heeled track devotees. Such was Porsche's confidence that it even applied the RS treatment to its hooligan GT2 Turbo: the GT2 RS had the GT3 RS lightweight cabin and centre lock wheels, specific carbon-body panels, Cup-proven aerodynamics and a 3.6 uprated by 90 horses to 620 horsepower. Strengthened engine internals would

ensure longevity and perhaps the GT2 RS's most impressive statistic was its 1,370-kilogram kerb weight. 500 were built and quickly sold: the UK price was £164,107.

In what is seen as the final RS chapter, the run-out 997 GT3 RS was ennobled with a Cup-derived 4.0-litre engine with parts from the GT2 RS. Despite producing 124 horsepower per litre, this RS offered a remarkable element of everyday driveability. In the same vein the cabin was again comfortably appointed – no bare metal and air-conditioning was standard. Further use of carbon fibre took kerb weight down to 1,360 kilograms and other subtle modifications to the suspension enhanced the ride. Project leader Andreas Preuninger claimed that for much of 2010, he was comfortably able to use a development 4.0-litre RS for commuting. Yet as ever this RS remained true to the RS ethos – a committed driver's car: the steering, clutch and gearshift were more demanding than a stock 911's and its handling toward its very high limit was not for the neophyte. With the advent of the radically different 991 GT3, the enthusiast community quickly recognised that the now-unfashionably analogue 4.0 RS surely represented the final expression of the 'RS' tradition. That said, the 991 GT3 RS has again raised the 'Rennsport' bar for Porsche. **911**



**Above from top**  
The GT2 RS remains the first – and only – roadgoing Turbo to attain the factory Rennsport moniker, while the 991 has covered new technical ground for the RS





# 991 GT3 RS FIRST DRIVE

It's the most anticipated Porsche 911 in years, so just how does it take the 997 RS 4.0's crown as performance king? Total 911 finds out with the first drive of the new 991 GT3 RS

Written by **Kyle Fortune** Photography by **Porsche AG**



**A**s confidence leaps go it's a huge one, the uphill, unsighted right-hander climbing out of a bomb-hole that's similar to the 'Seca Corkscrew in gradient, and no less challenging. We remember it well, the 911 Turbo feeling flighty at the peak, requiring every bit of nerve to keep it lit and ride out the slight transition to oversteer at comical speeds – just as the suspension lifted and gravity's hold was relinquished by the force of a turbocharged flat six and the crest of a right-hander.

In the new GT3 RS the corner is no less senior, but very different. The homologation hooligan's aero makes all the difference and keeps it tidier, even at the same speeds that the 991 Turbo managed. We're at Bilster Berg, Germany, which is a challenging track for any car and driver. We've been here once before in that Turbo (and Turbo S), and now there's a Porsche reprise, as it's where we get our world first drive in the 991 GT3 RS.

There are some worried-looking faces from the Porsche hierarchy that the rather tight, heavily cambered track might not be the best place to demonstrate the GT3 RS's entire repertoire. And for the first time ever in a Porsche event, there's an edict that the stability and traction control systems are to remain on. Is this a tacit admission that the GT3 RS is a handful? The discussion prior to our test is that the GT3 RS is, and has to be,

more distinct than the GT3. In the metal, it's most certainly true: that much is obvious from the looks alone. There's no badging and no fancy contrasting livery to denote this limited-run RS model. It doesn't need it. Twice we've seen the 991 GT3 RS on motorshow stands, but nothing prepares you for the visual assault the modified, lighter, magnesium-roofed, bewinged and vented Turbo-bodied RS represents. More than ever before, the RS looks like it's been de-numbered after an endurance race. That rear wing, sat high on skeletal supports, those louvered vents atop the carbon fibre front wings, and the unique front spoiler all absolutely scream Porsche race car.

It's the wheels that really grab you though; the massive 21-inch rear centrelocks with their gargantuan 325-section Michelin Pilot Sport Cup 2 tyres look almost cartoonish in size – it actually makes the GT3 RS look over-tyred. They're the same specification as the 918 Spyder, which tells you everything you need to know in terms of how much grip is on offer. The fronts are marginally smaller at 20 inches and with 265-section rubber. And, according to Porsche's chassis gurus, if one thing has been a developmental then it's been getting those wheels and tyres to fit.

They managed it though, and the result is breathtaking. Traction, always the 911's forte, is incredible, the 0-62mph dash taking just ➤



3.3 seconds. There's never any hint of wheelspin either, the GT3 RS able to despatch its stopwatch-bothering party trick without any drama. Keep your right foot on the floor and it'll reach 100mph in an incredible 7.1 seconds (and 125mph in 10.9 seconds) on its way to a 193mph maximum. If you're au fait with that most American measure of performance, it'll go from Christmas tree to the quarter mile marker in just 11.2 seconds, which is a pertinent marker of its performance insanity.

None of the straights at Bilster Berg are long enough to test out those numbers against the clock, but there is no reason to question them – and we know Porsche itself is always conservative when quoting numbers, with an emphasis on repeatability. This is something that troubles Andreas Preuninger, particularly when it comes to one specific number: the Nürburgring lap time. For the record it's being quoted as seven minutes and 20 seconds, which to put in context is nine seconds less



than a Carrera GT. That was achieved on a partially wet track though, and Preuninger says there's at least two – if not three – seconds more to come off that audacious time.

It feels every bit as fast as that, too. It's not the raw speed either, as although the enlarged, 4.0-litre flat six develops an additional 25hp and 20Nm of torque over the GT3, for 500hp and 460Nm respectively, the RS is supported by a chassis that's initially difficult to comprehend. That cresting right-hander we opened with demonstrated it, and the long twin-apex left hander at the end of the main straight at Bilster Berg underlines it.

The RS's nose is keener to turn in than any 911 before. It takes some learning, and even after a few increasingly faster laps it's tough not to have a slight confidence lift. But keeping the accelerator steady or even upping the speed sees the RS arcing a line through the tricky off-camber corner with eye-widening accuracy. Lift slightly, and there's a weight-shifted correction, the rear moving quickly and predictably, though the speeds involved dial up the intensity markedly. That's with the stability control on, the GT3 RS's safety thresholds high enough to allow that adjustability without locking it down with interference and assistance.

The high-speed stability is remarkable, so much so that Walter Röhrl declared he would have the new GT3 RS over its same-capacity 997 namesake, simply because of the extra stability the longer

**Above Right:** RS-style door pulls and 918-esque steering wheel are the major cockpit revisions from a GT3. Lightweight 918 buckets are available but speccing them means your RS won't arrive until autumn

**Right:** The new RS is dripping in detail yet sadly there's no engine shot in sight, as the 991's unit remains hidden

wheelbase brings. And that's without mentioning the grip, which thanks to those larger wheels and tyres increases the contact patch by 20 per cent at the front and 18 per cent at the rear. Those Michelins are bi-compound too, using differing rubber compounds on the inner and outer edges, with Preuninger admitting that thanks to the rear-wheel steering with RS-specific revisions, the tyres also deteriorate more slowly and are less prone to over-heating under extreme track use.

There's no obvious let-up in tyre performance around the 4.2-kilometre track, the GT3 RS absolutely monsterring the 44 crests and dips and 19 corners that make up Bilster Berg's route. Turn the slightly smaller-diameter steering wheel, and the nose reacts with an immediacy more akin to a mid-engined car than a 911, such is the increase in turn-in speed. There is little or no tendency to understeer, even if you're a little bit ambitious with entry speed. In fact, the entire steering system is revised to cope with the additional forces exerted on it thanks to both the RS's downforce and the sheer mechanical grip on offer. There's fine, consistent weighting at the wheel allied to that ➔

991 GT3 RS



<b>Model</b>	<b>991 GT3 RS</b>
<b>Year</b>	<b>2015</b>
<b>Engine</b>	
Capacity	3,996cc
Compression ratio	12.9:1
Maximum power	500hp @ 8,250rpm
Maximum torque	460Nm @ 6,250rpm
Transmission	Seven-speed PDK
<b>Suspension</b>	
<b>Front</b>	Strut suspension, MacPherson type, Porsche optimised; cylindrical coil springs with internal dampers
<b>Rear</b>	Multi-link suspension on five links; cylindrical coils with coaxial internal dampers
<b>Wheels &amp; tyres</b>	
<b>Front</b>	9.5x20-inch; 265/35/ZR20
<b>Rear</b>	12.5x21-inch; 325/30/ZR21
<b>Dimensions</b>	
<b>Length</b>	4,545mm
<b>Width</b>	1,880mm
<b>Weight</b>	1,420kg
<b>Performance</b>	
<b>0-62mph</b>	3.3 secs
<b>Top speed</b>	193mph

“More than ever before the RS looks like it’s been de-numbered after an endurance race”



instantaneous reaction to input. It's entirely possible to accurately judge what's going on at the RS's nose, even if there's paucity of real, quantifiable feel, at least in the traditional sense. It's the best electrically assisted power steering out there, without question, but even the might of Porsche's best and most talented chassis people haven't yet managed to deliver that sensation of genuine connectedness at the wheel.

Where the GT3 RS feels significantly different to its predecessors – and even the standard GT3 – is in its aerodynamic make-up. Here's a road car that's able to offer 80 per cent of the downforce of a GT3 Cup car, yet with only a marginal penalty in drag over the standard GT3. More than any road car before, you can feel the effect of the aerodynamics working on the RS. The front axle's pushed to the road with as much as 121 kilograms of force; the rear, thanks largely to that sizeable wing, generating 224 kilograms of downforce. You will certainly notice its effect on the track, if not the road.

Indeed, for all the talk of a more distinct personality for the RS over the standard GT3, it retains the on-road usability that arrived with the 991 GT3. There's reduced ride height, which causes some chin-scraping, but the optional lift kit should assist here. Such is the performance of the standard GT3 on the road it's all but impossible to ascertain the real differences between the two cars

at anything approaching sensible speeds. The RS feels wider, though those huge tyres and RS-tuned suspension, which sees ball joints replacing bushes almost throughout, seem to do little to upset the ride quality – on smooth German tarmac at least. It offers two damping choices via PASM, the firmer of the pairing adding frequency on the road, though works driver Jorg Bergmeister says it adds a touch of understeer on the track. Röhrhl seems to disagree, preferring the GT3 RS on track – Bilster Berg at least – with the suspension on the softer of its two settings.

The steering is slightly more alert on the road, but it's not as if the GT3 RS is particularly lacking when it comes to response to input. Likewise, the engine, with its larger swept volume (thanks to a bigger crankshaft made of the same steel that's repeatedly vacuum heated for purity in Porsche's 919 WEC hybrid prototype racing car) doesn't feel markedly different in character. It is slightly more endowed with torque, that being most obvious in the mid-range, with the GT3 RS punching with more force from lower revs. The best of its performance is obviously revealed when that flat six's pistons are striving for their maximum rate, but the spread of power is more accessible, easier and faster than ever. If you're reaching the slightly lower (by 200rpm) redline at 8,800rpm in the GT3 RS on the road then you'll be asking for

trouble. Literally, the GT3 RS's combined engine and exhaust note act like a siren-call for police for many, many miles around. It sounds absolutely magnificent, the noise it makes unsurprisingly similar to the GT3, but infused with a slightly more guttural, harder edge. There's little advantage to pressing the button for the Sports exhaust, it adding noise rather than real intensity, and it's not short on volume with it on its more sensible setting.

A few laps in with confidence growing, it's possible to see where the GT3 RS betters the Turbo around the track. Following Porsche's Jorg Bergmeister in a Turbo S, it's obvious he's a bit busier around here than he might be in the RS: it's moving around where the GT3 RS feels utterly resolute. A lap alongside him later demonstrates that on at least a handful of corners we're being far too cautious with the new Rennsport.

Back in the driving seat, assured that the GT3 RS can carry more speed than we've been giving it until now, the change is notable. Even on a trailing throttle or braking deep into a bend, the GT3 RS's stability is remarkable. The fully variable electronic differential and torque vectoring unquestionably play their part here, as does the rear-wheel steering. It requires serious intent and an abandon of caution to really reveal what it's capable of, and the GT3 RS is unlikely to run out of ideas before the average driver runs out of bravery. If you're attuned



“It’s a sensational car that moves the RS game on – perhaps more significantly than any Rennsport before it”



## Walter Röhrl on the 991 GT3 RS

Bilster Berg is a relatively unfamiliar track, so we jump alongside Porsche legend Walter Röhrl for some sighting laps and a chat as a chasing pack of 991 GT3 RSs follow. “This or the 997 GT3 RS 4.0, then?” I ask. “Definitely this, it’s so much more stable thanks to the longer wheelbase, and the grip is incredible,” says Walter.

He’s done over 6,000 miles in the new RS, mostly over the past few weeks and on the road, his role in the development not so involved as he was busy elsewhere working on the 918 Spyder. Even on the smooth track tarmac, Röhrl prefers the suspension in its softer setting. Like Preuninger, Röhrl finds the Nürburgring lap time chasing somewhat futile, saying that the difference between what pro drivers can achieve and what customers might be able to do leaves a sizeable gap.

That said, his assertion that the 991 GT3 RS can be fully exploited by owners is not in question, though even Röhrl admits it’d be his choice as a track car and he’d have something else for the road. What might that be? “The Cayman GT4,” replies Röhrl. That’s quite an admission from Porsche’s most famous employee, the GT3 RS remaining the giant-killing, track-focused monster it’s always been, but now operating on such a plane it’s become a more specialist proposition, albeit not at the expense of its always rounded ability.





to track driving, it's a hugely engaging, rewarding car to drive, feeling every bit the homologation racer, with its faithfulness to input and incredible combination of both mechanical and aero grip. You genuinely need to recalibrate your expectations as to what's possible, as the RS delivers more the harder you drive it. Hesitancy creates imbalance, yet the RS needing real commitment, though the rewards are absolutely mighty if you're prepared to push yourself – and it – harder each time with increased confidence.

Less benign than the GT3, there is an edgier, more hardcore side as you'd expect, though it's not a car to be frightened of; it's simply a case of learning the 991 GT3 RS's ways and trusting its capabilities. Do that and it's little short of driving nirvana, the ultimate representation of Porsche's GT department, at least without the requirement for Nomex attire and a one-way, ultimately circular drive. Yet, for this road car, the track feels like its natural environment, the only place where it's genuinely possible to start nibbling away at its limits, carrying enough pace to start enjoying the effect of its aerodynamic enhancements and allowing for the joyous thrill of wringing that flat-six out to its redline to be realised.

Do so, and the forces acting upon you will be intense; the visceral, heady combination of building G-force (not just accelerative, but cornering too) allied to that intoxicating soundtrack being all but impossible to resist. Reach that redline, and the merest hint of pressure on the paddle sees the PDK swap ratios with astounding pace before it all starts again. Several laps in, we're still occasionally spitting out expletives in utter bewilderment, as

our speed continues to increase on each lap. Just as the engine's ability to shift the RS's reduced mass is improved, so too are the brakes. All the launch cars were fitted with the £6,248 PCCB option, and on evidence of the sort of huge abuse meted out on them on the track they're a must-have. The pedal feel is assured, the stopping power never anything less than extraordinary. Indeed, the only way the braking experience could be improved would be to fit the Clubsport's multi-point harnesses to ensure you're held in place tightly rather than hanging off the inertia reels and holding the steering wheel too tightly as a result.

A lap bending the rules with everything switched off reveals that it's just as playful as the GT3, only at higher speeds. Switching it back on does nothing to detract from the Rennsport's appeal, and adds confidence behind the wheel – not least as this track shares the Nürburgring's barrier proximity and limited run-off in places. Not that the GT3 RS is a daunting prospect – far from it – but with them on, it never feels in any way like it's reining you in or second-guessing you. This reveals the fundamental correctness to how it's been set up in the first place, the GT3 RS a quite phenomenally able car that's seemingly without any vices. It's not just evident at the very extremities of its performance, but also when simply asked of the mundane, everyday grind. There's none of the previous RS traits of recalcitrance from the drivetrain (it's devoid of the transmission chunter or occasional hiccup at slow speeds), the GT3 RS blending the elements that define the 991 series, but with the focus of the GT department. Some might find that polish a little bit anodyne in comparison, but that'll quickly diminish

the second the RS is given a chance to shine in its natural environment. There, it'll challenge and goad you to ever swifter lap times.

The sometimes tight, usually fast, enormously undulating and always tricky track here at Bilster Berg is a huge challenge for any car, but the GT3 RS just keeps on revealing more with every single lap. It's a sensational car that moves the RS game on, perhaps more significantly than any Rennsport before it – even the mighty 997 RS 4.0. Given the starting point offered by the 991 GT3 is already among the most accomplished, rewarding and engaging cars that money of any amount can buy, that's a very serious statement for the 991 GT3 RS to adhere to.

But then the GT3 RS is a very serious car, as we always knew it was going to be. It just took that first leap of faith through that cresting, blind right-hander to really underline just how sensational it really is. **911**

### 991 GT3 RS first drive: the verdict

#### Positives

- Mechanical and aerodynamic grip is sensational, with quick steering and incredible agility;
- Much more distinct visually from its GT3 relation;
- Incredible value-to-performance ratio, in comparison to the used GT3 market it's ridiculously cheap.

#### Negatives

- Slightly over-wheeled look to the rear end;
- Wider than the GT3, which limits its ability when on tighter roads;
- Question mark over the ride on rougher surfaces and limited possibilities to really use its full performance.

# WILD IN THE COUNTRY

997  
GT3 RS  
TESTED  
PART 1:  
ROAD

The 997 GT3 RS has always been billed as a raw yet usable track-bred 911, but can the factory model be made even better? Upgraded with Manthey KW suspension and SQS sequential shift, we unleash this special Rennsport on the downs of Salisbury Plain to find out...

Written by **Johnny Tipler** Photography by **Antony Fraser**

**N**irvana? Not so much grunge as plunge, because I'm in at the deep end, blissed out in the quickest non-turbo 911 road car. Music impresario Dave Summers has given me carte blanche to take off with his 997 GT3 RS to compose a two-part feature, in essence a three-day trip across south-west England, before ending up with a Silverstone trackday.

This Gen2 RS has not only been worked over by Hertfordshire specialists JZM, making for an even meatier story, but Dave has also hooked us up with Mike Wilds, Seventies and Eighties F1 and Group

C driver – and 3.2 Carrera CS owner to boot – for some on-track tuition at Silverstone, where we'll see what it can really do. We'll be telling all about that little adventure in next month's issue.

I catch the InterCity to Cornwall, because Dave keeps his cars at Porsche specialists Williams-Crawford in an old schoolfriend's pact, where they are currently fettled, and that's where I pick up the GT3 RS. It's wet when I arrive, but by the time I've figured out the six-speed quasi-sequential shift and fuelled up with 97-octane, the sun's out, and I zing over the Tamar toll bridge, bypass Plymouth and point her north-east on the A38 across Dartmoor. ➔







The cockpit is raw and intimate but once you get used to it, it bears all the characteristics you would expect from an RS, ferocious temperament and all



It doesn't take long to acclimatise to the cockpit. It's a tad raw, but of course it's an RS. The acceleration is pretty ferocious when I put my foot down; it's instantly responsive and I play with the six notches of the sequential lever. It's utterly straightforward; just pull it back a notch every time you want to go up a gear and push it away from you when you want to drop a cog, with reverse a notch further ahead of zero. It's important not to hurry the shift, so until it becomes second nature you have to think about which way to go: push or pull. To see which gear I'm in, I'm relying on a little gauge dead ahead of me that tells you what gear you're in. At the moment I'm cruising and it's shining brightly with '6'. Surprisingly, the clutch pedal is obligatory for every shift, unlike a racing sequential box. It's the most incongruous piece of kit in the spec, although familiarity from extended use would conquer that impression.

Most of the tuning was done by JZM before Dave bought the car last November, and as well as the SQS sequential shifter, the inventory of new toys includes Manthey KW V3 fully adjustable suspension, which helps account for the particularly fabulous ride and handling. There's a fair amount of negative camber, and it's as if I've selected Sport mode – there's no understeer; just absolute precision. It is thus delicately poised, belying the GT3 RS's physical size and awesome power, making for a fine compromise between road and track. The ride is pretty firm but by no means as uncomfortable as hosts Williams-Crawford predicted ("bring a cushion!" they said); the RS 3.8 carbon seats are pretty comfortable, very supportive in the lower back and the shoulders, and only at the end of a long day at the helm did I hanker for something more comfy like my 964's armchair. The spokes of the RS's Momo wheel

angle the leather rim back towards me for a close-to-the-action steering position, while the indicators, headlamp flasher and windscreen wipers are an arm's stretch away, and the wheel is much closer. My legs are semi-bent, and it's a nice supportive driving position, fostering an assertive mindset towards the road.

The highway is still damp in places, and as I change lanes the car tends to dart as if tramlining on the white line, and then something slightly scary happens as it jinks unexpectedly to one side – not a slide I don't think, but an indication of how susceptible it is to the contours of the road. It is actually a soft ride physically, so although I'm aware of all the nuances of the changing road surface, I'm being bounced rather than bonked. There's a metallic clunk from the back end when the car goes over the cat's eyes, but on this fast A38 dual carriageway there are some lovely on



“The ride is **firm**  
but by no means  
**uncomfortable**”

Model Year	997 GT3 RS 2010
<b>Engine Capacity</b>	3,800cc
<b>Compression ratio</b>	12.0:1
<b>Maximum power</b>	450hp @ 7,900rpm
<b>Maximum torque</b>	430Nm @ 6,750rpm
<b>Engine modifications</b>	RSS engine mounts
<b>Transmission</b>	Close-ratio six-speed with single-mass flywheel; SQS sequential gear shift system; short-shift cable; Cup LSD diff plates;
<b>Suspension Front</b>	Lower wishbones and MacPherson struts; antiroll bar; coilover dampers
<b>Suspension Rear</b>	Multilink with antiroll bar; PASM; coilover dampers
<b>Suspension modifications</b>	Manthey KW V3 Suspension System; Alcon front discs, Endless pads; steel flex brake lines; uniball suspension
<b>Wheels &amp; tyres Front</b>	9x19-inch centre-lock alloys; 245/35/ZR19 tyres
<b>Wheels &amp; tyres Rear</b>	12x19-inch centre-lock alloys; 25/30/ZR19 tyres
<b>Dimensions Length</b>	4,460mm
<b>Dimensions Width</b>	1,852mm
<b>Dimensions Weight</b>	1,370kg
<b>Performance 0-62mph</b>	4.0 secs
<b>Performance Top speed</b>	192.2mph

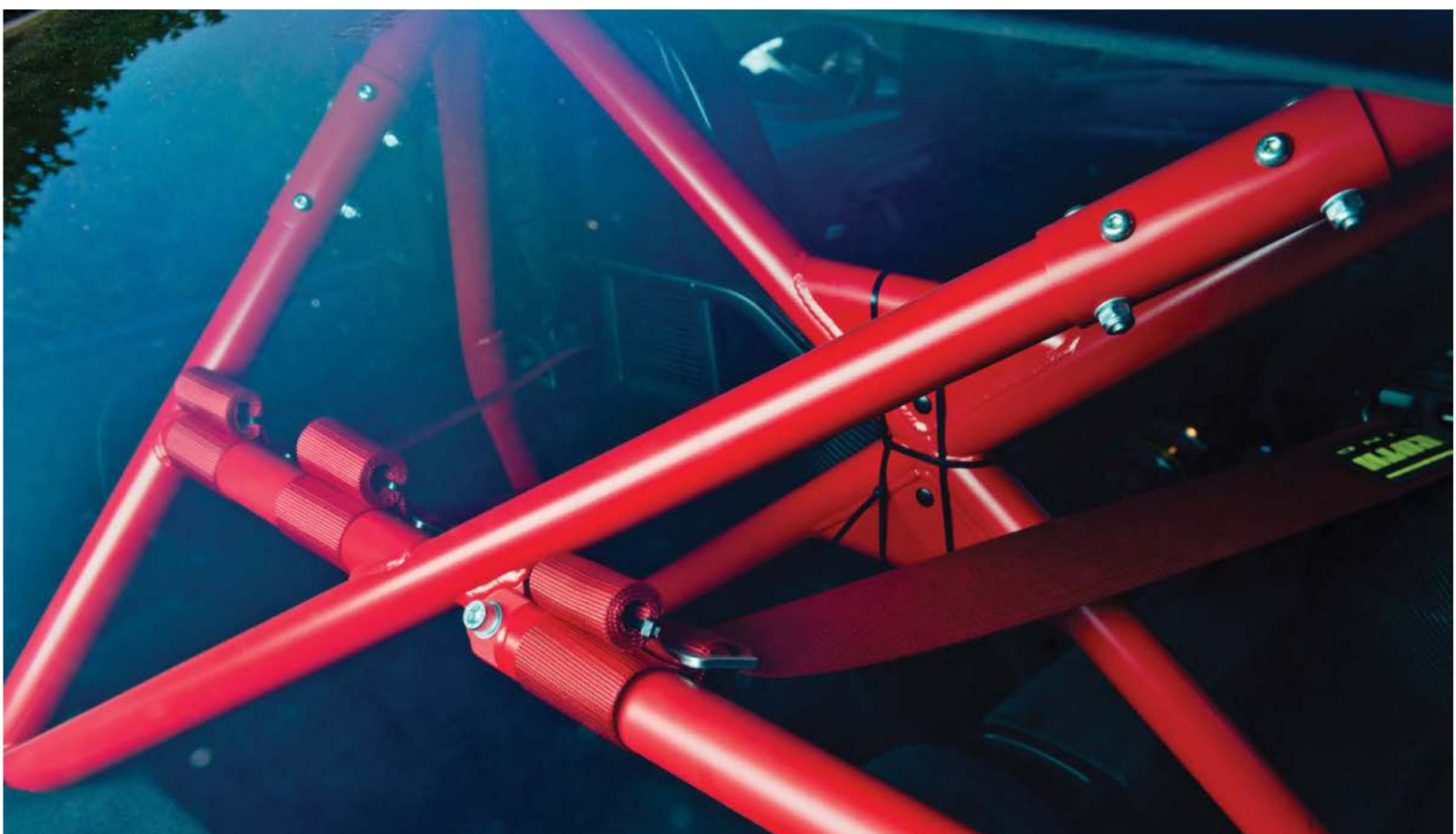
and off-camber bends and swooping troughs. Subject to traffic, I can really attack them. Going from one roundabout to another on the A303 is really exhilarating, using the sequential shift to slow down into the roundabouts and then gunning the throttle and working up through the notches. I'm loping along innocuously at 70-ish. An overtake looms: I glance at the speedometer, and at 4,000rpm in sixth gear I'm doing 90mph, and suddenly the exhaust bellows like somebody blew a trumpet; the sound of a mournful mutt, it's more of a boom than a roar.

I meet up with snapper Fraser, and we head for the long, big-dipper straights and double-bends that bisect Salisbury Plain. We spy a Scorpion tank trundling along one of the MoD's dusty trails that criss-cross the Plain. Tracked wheels have ribbed the tarmac at crossing places, but the GT3 RS is undaunted. It's nifty around the lanes and





This is already an incredibly focused car straight out the box, but modifications including a sequential gear shifter make this RS all the more enjoyable to pilot – even on public roads



extremely well planted on these fast A-roads, and we are really barrelling. Using the sequential shift lever, I can zap through the repertoire or use it in a more leisurely fashion, easing from notch to notch like a normal gearstick. By day two, it's not quite intuitive yet, but I'm almost there. Moving from one gear to the next, I can almost feel the cogs meshing through the stick, metal against metal.

Advantages? I can brake later going into a corner while shifting down rapidly, and even though I'm using the clutch, the shift can be accomplished more accurately than through a regular manual gate, and then I can short-shift coming out of the corner because there is so much torque to get me going again very quickly – or alternatively hold the gears and revel in the awesome force and flat-six chorale as the revs soar. Grip from the wide ContiSport tyres is stupendous, and the brakes are extremely effective when steaming up to a bend – and so they should be, with the size of the calipers.

At low speed the steering is nicely weighted so that parking situations are easily managed, which is handy when we make a comfort stop at Stonehenge's busy new visitor centre (where the GT3 RS is the pillar of the community), and when we arrive in bustling Marlborough high street on market day. I'm surprised at how much people are in awe of this machine, given its aggressive stance, but shoppers stop in admiration and a gang of lads snap it with their mobiles. Driving from the Ridgeway up to Silverstone on the A46, it's fast dual carriageway, and for the first time I really open it up. From 5,000-6,000rpm I'm unleashing the beast, and it exudes a different personality altogether. It really is an extremely fast, rushing, charging animal, and that gives us a very nice preview of what it might be capable of (particularly on a de-restricted Autobahn), and what's in store at Silverstone in the morning. I can't wait – and you can see how we got on over the page... **911**



## Ride and Handling

After hitting the highway, I'm done with Devonian dual carriageway in no time, and hacking along the two-lane 'A' and 'B' roads. The tiniest input into the steering wheel has it nipping and darting along the West Country lanes – it's a different kind of thrill to rushing between the trees and walls that edge the road. No sluggard in 'standard' form, this car's handling is extremely well sorted. The ride's not harsh, yet its behaviour aids and abets whatever line or manoeuvre I want to do. As far as steering input is concerned, less is more: it just doesn't need great steering input on a twisty back road. There's also so much grip from these Conti Force Sports tyres, and it turns in with absolute pinpoint accuracy.

“It really is an  
extremely fast,  
rushing, charging  
animal”



# TRACK MASTER



Our modified 997 GT3 RS proved to be a tangible sporting accomplice on the road, but can it attain the levels of performance offered by a Cup car?

Written by **Johnny Tipler** Photography by **Antony Fraser**

**G**reasier than John Travolta's quiff: that's the state of play around much of Silverstone's blacktop as we sashay around. I'm partnered with former GP and Group C star Mike Wilds in the GT3 RS that I've spent the last couple of days blistering the West Country lanes with (see part one last issue), and our progress on track has been severely tempered by adverse weather. Ever the pragmatist, Mike is undaunted, and merely uses the slippery surface to

highlight what the car can do under tricky conditions. This is one hell of a ride!

We gather at 8am in the pits garages of the old paddock, down between Woodcote and Copse. GT3 RS owner Dave Summers has taken a pair, as he's also shown up with a Guards red 930. We sign on and attend the drivers' briefing in the clubhouse. There are 60 cars booked in, and a show of hands reveals that a large number of the attendees haven't driven on the GP circuit before, although I can claim a reasonable ➔





knowledge of the course, having trained for La Carrera Panamericana with my co-driver and 911 racer Sarah Bennett-Baggs in a classic 914 during an RMA trackday.

Today's session is hosted by BookaTrack, and master of ceremonies Jonny Leroux bids us welcome, pointing out the wide performance differentials between the Radicals, Carrera Cup 997s, Caterham rent-a-cars and the diverse hot hatches and tin-tops present. The circuit is marshalled, and we must know what the flag signals mean – blue, yellow, red-and-yellow (and in my case it will be a black one). Overtaking is strictly on the left, and only on the straights, and even a Cup Car going twice as fast as a Clio must hold back when bellowing into a corner if there's a metaphorical rabbit already hopping about there. Infringement of any of these basic rules leads the culprit directly to an early bath.

After the sighting laps, Mike and I don our race suits, boots and lids, and prepare to head out on track. Although it isn't currently raining, it is decidedly damp. Mike has known this car for a couple of years, and was involved in the Manthey

KW V3 suspension upgrades carried out by JZM, taking the car to such exotic circuits as Portimao, Estoril and Jerez for testing. He's a big fan: "With slicks on, it's almost like a Cup car," he enthuses.

"It really is virtually a race car – an amazing compromise. On track it drives like a racing car, but on the road it's a GT3 RS. It's fantastic, and it's the best GT3 RS I've ever driven! It's a perfect compromise, in my view." In the past, it also sported a full-on Akrapovic Evo exhaust costing £10,000, whose blare Mike could only tolerate with ear defenders: "It sounded absolutely fantastic, but it was about 115 decibels, so there was no way we could run the car regularly in the UK." Hence frequenting foreign tracks, where they're more lenient on noise levels. "I've been racing 49 years, and until recently anything I raced wasn't silenced. I just like the noise of engines."

Despite his eulogy, Mike has reservations about one or two facets of the spec. "I love the car, even with its dummy sequential 'box. But having raced Cup cars with proper sequential boxes, it's not really my cup of tea, and I would much prefer it if the car had a H-pattern gate. At least you know you

can't miss a gear with this SQS lever, but I find the travel on the throw of the shift slightly too long, and I think I could probably change gear quicker with the H-pattern box than I can with this." The rear of the cabin is a complex triangulation of roll-over scaffolding, but would he feel safer on track if the cage extended over the front as well? "It doesn't really bother me, because I never drive the car to its limit, but if it was purely a track car then I would have a full cage. However, I'm not a lover of full cages on the road: if you have an accident without a helmet on you don't want your head to be hitting a roll cage."

Mike tries the brakes on the pitlane. We flash our plastic bracelets at the marshal and ease out onto the circuit at Copse. It's still damp, but we go for it. He drives the 'dry line' first to demonstrate where he would go in the dry, and a couple of laps later he deliberately takes the wet lines. There's more grip if you stay slightly off-line where the track surface isn't as polished: "If you go out to the sides where the rough tarmac is, it gives you a little more grip, even though it's still slippery – and let me tell you, it's very slippery!" ➔

## 997 GT3 RS track checklist

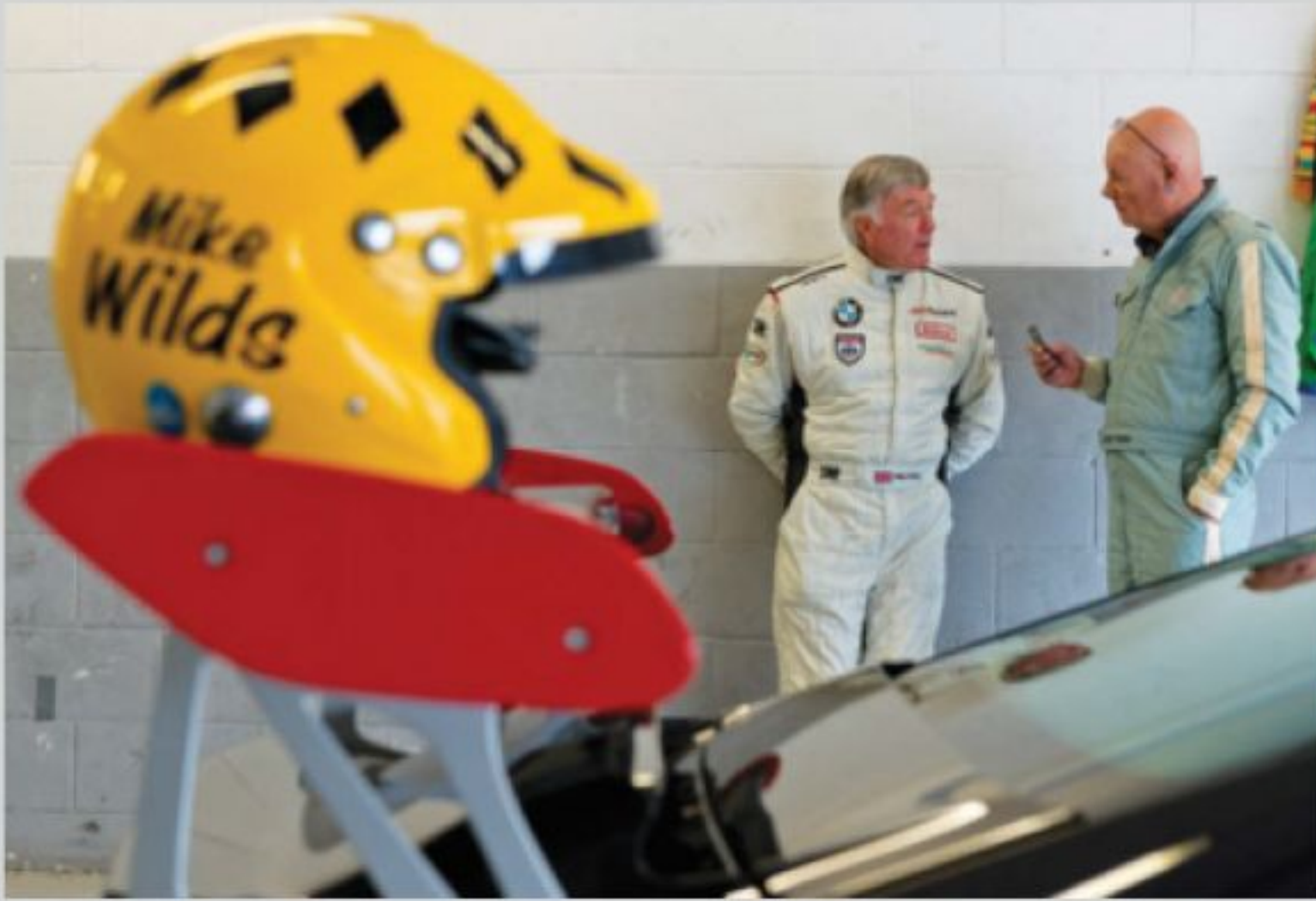
Owner Dave Summers is a full-blown petrolhead and loves to exploit his Porsches' potential. He bought the 3.8 GT3 RS almost a year ago from JZM because of the track-orientated spec, and then enlisted the services of F1 racer Mike Wilds to wring the best out of it. Mike already knew the car, having witnessed the mods being installed and shaking it down for its previous owner. That enabled Dave to acquire a ready-sorted car for a shade under £117,000. The car is kept and

maintained at Williams Crawford near Saltash, Cornwall, Dave's former stamping ground. There are always three sets of wheels and tyres available – road-going, wets and slicks, mounted on traditional BBS rims.

In terms of trackday costs, Dave estimates a half-worn set of tyres (maybe a full set if it's hot weather) to be worth around £1,500, and three tanks of fuel per day, totalling £240, depending on the track and the weather, as if it's wet

and slippery there's not so much throttle applied – unless you're Mike. He'll have a rev range check carried out after each trackday, and an oil and filter change, adding up to £350, plus a full valet at £100 to remove track rubber and grime. The GT3 RS uses Endless Pads at £1,000 for a full set, replaced every fourth trackday. It's not a cheap proposition, but as Dave says, "These cars are bulletproof if looked after and driven well."





“Nothing in our vicinity  
comes close to the  
GT3 RS”

<b>Model Year</b>	<b>997 GT3 RS</b> 2010
<b>Engine Capacity</b>	3,800cc
<b>Compression ratio</b>	12.0:1
<b>Maximum power</b>	450hp @ 7,900rpm
<b>Maximum torque</b>	430Nm @ 6,750rpm
<b>Transmission</b>	Close-ratio six-speed with single-mass flywheel; SQS sequential gear shift system; short-shift cable; Cup LSD diff plates
<b>Suspension Front</b>	Lower wishbones and MacPherson struts; antiroll bar; coilover dampers
<b>Rear</b>	Multi-link with antiroll bar; PASM; coilover dampers
<b>Chassis modifications</b>	Manthey KW V3 Suspension System; Alcon front discs, Endless pads; steel flex brake lines; uniball suspension; RSS engine mounts
<b>Wheels &amp; tyres Front</b>	9x19-inch centre-lock alloys; 245/35/ZR19 tyres
<b>Rear</b>	12x19-inch centre-lock alloys; 25/30/ZR19 tyres
<b>Dimensions Length</b>	4,460mm
<b>Width</b>	1,852mm
<b>Weight</b>	1,370kg
<b>Performance 0-62mph</b>	4.0 secs
<b>Top speed</b>	192.2mph





The GT3 RS came with two sets of tyres, but rain precluded slicks. With just a few chassis modifications, Mike Wilds says this 997 has Cup car character



As if to prove a point, Mike takes the line of least resistance, straightlining over the grass between the Maggots-Becketts esses, as the car just won't turn in on the grease. We wait as a racing E-type comes by and then pursue it, and it's clear the Porsche is the quicker car, especially in the corners, where the Jag is twitching dramatically. Perversely, there would actually be more grip if it was wetter: "The greasiness means you don't really understand how much grip level you have, so if it was wet at least it would be consistent." Mike's unconventional lines allow us to scud past everything else out there – Caterham, Noble, Exige, not to mention Dave's lovely 930, cloaked in clouds of spray: "Amateur drivers don't think laterally and try to find where the grip levels are; they just take the same line as

they would in the dry." Fortunately, this keeps him in business, showing novices and wannabes how it should be done.

Now it's my turn. Communication is aided by helmet-based intercom. I aim to emulate Mike's lines, while moderating the GT3 RS's speed according to weather and quicker traffic. It's drying out, but still slippery. "Let the car take the strain, and just stay relaxed," counsels Mike. "Keep your hands at ten-to-two and don't move them." Here's a sample of his calm coaching spiel as we travel from Hangar Straight in sixth gear along to Abbey Curve, about a quarter of the full Grand Prix circuit: "We are coming down to Stowe, we do this in third gear, just look for the grip level. It is drying out a little, but this corner is very slippery on the

exit, so be very careful with real power. You can feel it twitch there; from the middle of the corner it is unbelievably slippery. Third gear for Vale is fine; just keep an eye on what's happening behind you. Very good, across to the left of the circuit, brake and change down one, off the brakes and turn in now. Go right the way across to the other side, and then drop a gear for Abbey and turn in. On the power and aim right across the track."

That's what you'd get, lap after lap, if he was your instructor. After half-a-dozen tours, a marshal waves the black flag at us. The only time I've had this happen was while racing an Alfa GTV6 at Brands when it was leaking fuel. We do an in-lap, and the steward is waiting: "You're too loud," he says. "We recorded 106 decibels on the start finish

line and the limit today is 102db. Try short shifting instead of going full bore and it won't be so noisy!"

After lunch it's dried out some more, so Mike has another run. For a few glorious laps we are really motoring, and I can feel the chassis working as the car moves around and Mike monsters the corners, sensing the G-force that the car will pull. Once a racer, always a racer, and Mike takes no prisoners: although one Caterham tries it on, nothing in our vicinity comes close to the GT3 RS. Then it drizzles again, and as if on a polished ballroom floor, it's sideways city once more.

Back in the garage, he's still bubbling with enthusiasm. "You could see the grip level with normal Continental road tyres, but with slicks it's sensational, tied in with the suspension geometry,

which is set up for slicks, so we're running an awful lot of camber, which means we're not using the road tyres to their fullest extent across the tread pattern. But if you go out in the dry with slicks on, apart from being a little heavier, through the corners you wouldn't know you were not in a 997 Cup Car, and you would be astounded at how quick it is."

Sure, it is a compromise, because although the suspension is stiffer than a standard Gen2 RS, it is nowhere near as stiff as a Cup Car – and thank goodness for that, because on the road it is absolutely sensational. It could be the ultimate road and track car. We've enjoyed a slide on the wild side, so let's give Mike the last word: "Best GT3 in the world!" he beams. **911**





# 996 GT3 RS

The most affordable way of buying a Rennsport 911 will provide buyers with a true future classic

**U**nlike the standard GT3 on which it is based, the 996 GT3 RS's banshee-like howl is likely to be the only noise that you'll hear emitted from the dual tailpipes.

The reason for this is two-fold. The updated Mezger engine in the RS model only makes one sound, whether at 1,500rpm or 7,000rpm. Even if it did have the ability to make different noises, you wouldn't experience them because, as a driver, the GT3 RS always urges you to wring its neck. If you step up to the challenge, the 381bhp engine's tone is orchestral. Nonetheless, it isn't the sound that makes this car a must-have.

GT3 RS models are often described as 'more focused' editions of their standard GT3 brethren.

However, the 996 'Rennsport' isn't focused; it is distilled. It is the very essence of driving involvement, packaged in an iconic white and red or blue livery.

The steering wheel is a weightier affair than the GT3, increasing the illusion that you are in the cockpit of a bespoke racing car, not a road-legal grand tourer. The additional camber on the front wheels is the culprit, increasing feedback, yet this isn't a negative trait. On every inch of tarmac, you always know what is going on. The sensation of this all-enveloping involvement is incredible.

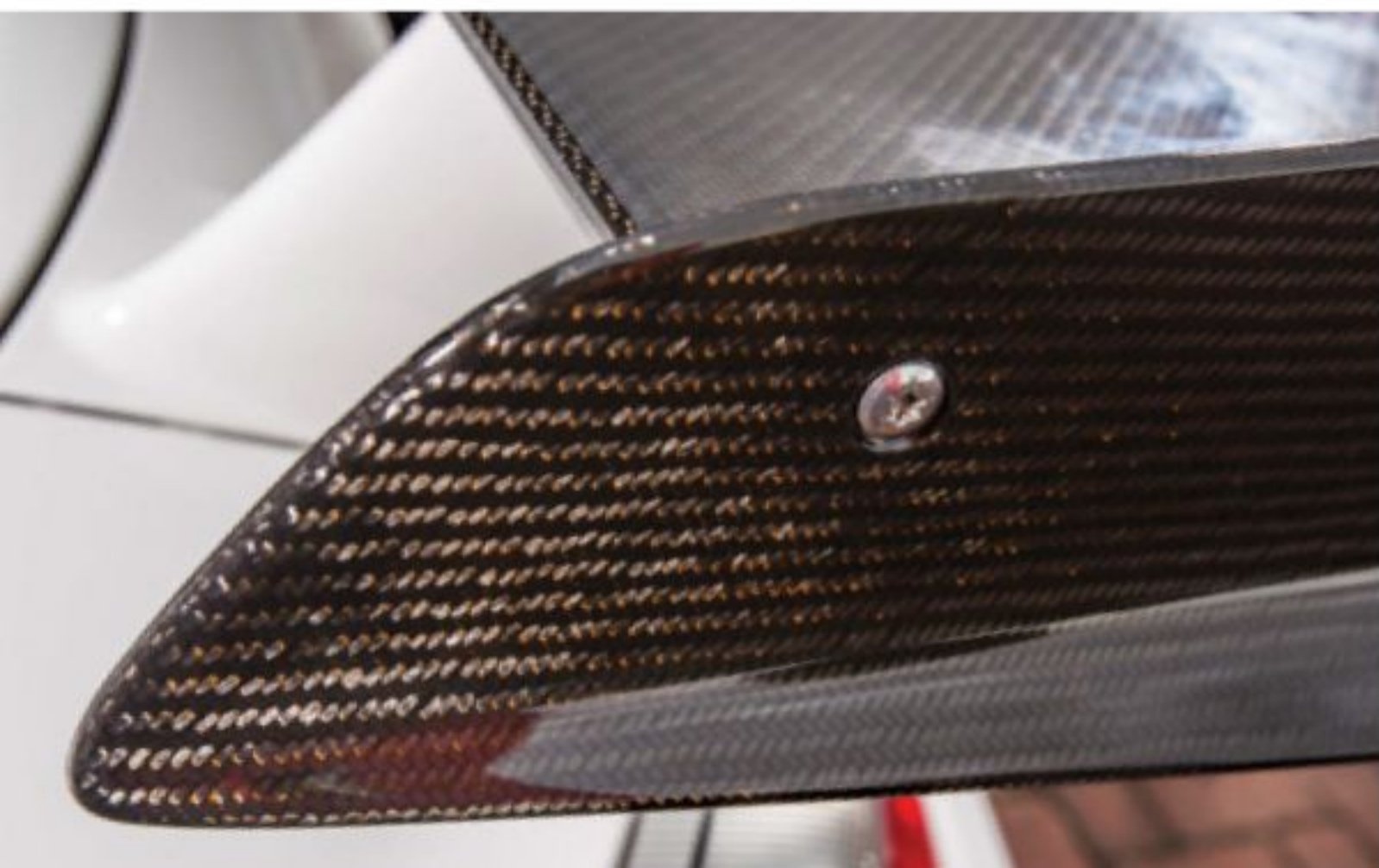
Turn in is immediate, providing huge levels of confidence, even on the damp and rutted roads of the Northamptonshire countryside here. Once into the corner, the archetypal 911 understeer is

non-existent – always on the heading that you, the driver, intended.

As you apply the power hard, the GT3 is liable to sit back on its haunches, creating an unnervingly light steering wheel. The stiffer springs and dampers on the RS decrease the level of squat (reducing weight transfer to rear wheels), providing a more consistent level of front grip.

While the 997 GT3 RS may feature an improved power plant – and the upcoming 991 even more so – Weissach were incredibly near to the ultimate handling yardstick when the original GT3 RS rolled off Porsche's motorsport production line.

Inside the cockpit is an incredibly pleasant place to be. The half-cage allows for plenty of space in the front to house the driver and their undoubtedly





## Specification

**996 GT3 RS**  
(2004)**Engine****Capacity:** 3,600cc**Compression ratio:** 11.7:1**Maximum power:**

381hp @ 7,400rpm

**Maximum torque:**385Nm @ 3,500rpm –  
5,000rpm**Transmission:**

Six-speed manual

**Suspension****Front:** MacPherson strut**Rear:** Multi-link axle**Wheels & tyres****Front:** 8.5 x 18-inch alloys,  
235/40 ZR18 tyres**Rear:** 11 x 18-inch alloys,  
295/30 ZR18 tyres**Dimensions****Length:** 4,435mm**Width:** 1,770mm**Weight:** 1,360kg**Performance****0-62mph:** 4.4 secs**Top speed:** 190mph

petrified passenger. The Recaro bucket seats are wider at the shoulders than those in the standard car, allowing the driver to feel like they are sitting in the seat rather than on top of it. You are also sat lower than the GT3, providing a more motorsport-orientated driving position.

While the RS is understandably fixated on weight loss, the interior feels surprisingly luxurious. The use of Alcantara on the steering wheel and dashboard surround aids the high-end aesthetics and ergonomics, while the body-coloured transmission tunnel housing both saves weight and looks fantastic in this type of car.

On the subject of weight, the reduced mass of the windows, bonnet and engine internals provides a noticeable improvement in performance. In second

gear at full throttle, the 996 GT3 RS can only be compared to an aeroplane taking off, such is the kick in the back provided by the car's ludicrous willingness to accelerate.

Enabling the accelerative capacities are the short ratios. It seems like as soon as one gear is dispatched, the red line is looming large once more. However, the same positive gearbox from the GT3 is employed to do the business, making shifting an enjoyable occupation. The argument may have been done to death but, without PDK, the GT3 RS is a full-blown workout for the driver, and this is no bad thing. In fact, it improves the spectacle.

For a car that offers such poise and a willingness to urge you on to ever-greater speeds, the ride comfort is remarkable. The dampers' bump control

is supposedly stiffer than the GT3. However, such is the quality of the setup, the RS feels no harsher. Only over the largest of imperfections in the road surface is the difference noticeable, and even then it's only a slight internal jolt rather than a bang likely to loosen fillings.

Prices for Rennsport cars are always high, with the latest 997 GT3 RS still commanding strong figures and the late air-cooled cars straying into the realms of an appreciable classic. This leaves the 996 GT3 RS as the most affordable way of getting an RS badge on the back of your 911 for considerably south of six figures. In fact, go shopping with your £60,000 and you could still come back with change and a car that carries the extra special cachet of 'Rennsport' exclusivity. **911**



# 993 RS

The RS makes for a sensational driving experience, but what do you need to look at when entering the market for one? Total 911 climbs behind the wheel of the last air-cooled example to find out

Written by **Lee Sibley, Chris Randall & Kieron Fennelly**  
Photography by **Phil Steinhardt**

**T**his is it: the final curtain call of the air-cooled Rennsport, the zenith of road-going, race-bred precision of the truly classic 'RS' moniker before it switched to a water-cooled 'Mezger' powerplant.

The 993 RS has long been revered by purists, but today it has achieved halo status as a lightweight racer devoid of significant driver aids by modern standards. This is reflected in market values: upon release in 1995, a 993 RS in comfort specification would have set you back ££68,495. Nearly 20 years on, that same model has now comfortably eclipsed the £200,000 mark.

Records show that 1,104 993 RS models were built by Porsche for worldwide markets, of which 227 were the even lighter Clubsport variants (recognisable thanks to a larger and taller rear spoiler). 38 993 RSs were sold in the UK (26 in 1995 and 12 in 1996), although there has been much coalescence of the cars since, and multiple left-hand-drive cars are currently on the market here.

So: revered, rare and raw. These are the alliterated adjectives crashing through my mind as I stand before this particular left-hand-drive example ahead of its road test to kick-start our definitive 2015 buyer's guides.

Walking around the RS, I'm struck by just how small it appears in comparison to the 991 Turbo

I'd arrived in. Appearing to hug the floor thanks to its factory-lowered suspension (30mm at the front and 40mm at the rear), the figure of the RS is accentuated by aggressive yet oh-so smooth lines flowing from the front corner spoilers to that purposeful flat tail over the decklid.

The three-piece wheels encapsulating huge 'Big Red' brake calipers all round are a pertinent nod to the car's sporting credentials, yet thanks to the Midnight blue paintwork, there's a deep mystique emanating from this particular 993. It's almost chilling: for a moment, I feel like the RS is assessing me as I stare and assess it in turn, provoking me into posing my own self-damning question: "are you worthy, Lee?" Unperturbed, I open the left-hand door and climb inside to find out what lies beneath its taciturn persona.

Settling into position, the Sports seats provide a brilliant grasp of my body, hugging me tight around my sides – and they're comfortable, too. I gaze in the internal rear-view mirror to see the 'Carrera RS' script stitched into the carpet in place of the rear-seat backrests, before taking in the rest of the interior. I notice the original owner of this example had electric windows fitted, and air conditioning is present too, though the cabin otherwise feels fairly sparse in keeping with the purist Rennsport DNA.

Firing the RS up, the bigger 3.8-litre engine (an increase in cylinder bores from 100mm to ↻





102mm over standard 3.6-litre engines) barks into life and emits a deep growl as it quickly settles to a steady idle.

The clutch is surprisingly weightless under my foot (in stark comparison to the last RS I drove, a 1997.2 GT3 RS), and I easily find the biting point before slowly moving the 993 from standstill and out onto the open road.

Beginning my journey by attempting to traverse through the busy streets of north London, the RS wastes little time in transcending the message that these are far from its ideal operating conditions. Traffic is slow, so I'm having to constantly flit between first and second gears, which proves difficult while the gearbox oil warms up. Each shift is clunky, so I have to blip the throttle before each change – up and down – for a more seamless selection of gear.

Shortly after, a long residential street littered with sleeping policemen highlights the firm ride of the RS, as each harrowing hump attempts to throw my body skywards. The RS's characteristically unforgiving damping forces me to scan the road ahead before darting the car around the plethora of potholes and blemishes in the asphalt. Not long after I find myself having to wrestle the steering wheel on shoddy 'B' roads, as

the front wheels simply want to follow the uneven contours of the blacktop.

I quickly learn that the RS appreciates only very minute adjustments in gas pedal application too, as simply lifting off from the pedal (a style I'd got used to in driving the PDK-equipped 991 Turbo en route) sends the 993 lurching uncomfortably along the road. Instead, easing off the gas pedal millimetre by millimetre is best in traffic, and I shortly reacquaint with a smooth ride.

In fact, it takes a good 30 minutes for me to truly get to grips with the sheer purity of the 993 RS, and I soon realise that the car needs to effectively be bullied to get the most out of it. I learn that you must be distinctly proactive in your driving style here, not merely reactive.

Soon after on the country roads of Hertfordshire, the 993 RS had my hair on end. Its precision at the nose when cornering is almost unlike any other 911 I've driven. It allows you to carry good speed on turn-in while remaining very stable, darting inside to cover the exact sliver of tarmac intended by the driver.

The 100 kilograms of saved weight is keenly felt in the RS, too – it feels featherlight compared to the 993 Turbo S I'd driven earlier in the year, and lighter than the Carrera. This, when twinned with

the abundance of low-down torque available from the larger 3.8-litre engine thanks to its VarioRam fuel-induction technology, makes the RS exciting to drive at all times. It just wants to travel, and I'm more than happy to oblige as I squeeze the accelerator for rapid propulsion forwards.

Scrubbing speed is just as entertaining as the RS's accelerative and cornering abilities: the brakes feel somewhat draconian by today's standards, though purists will love the sensation of really having to stamp on the floor-mounted middle pedal to get the pads to bite. It's perfectly in keeping with the 993's required driving style.

The afternoon duly whizzes by in an adrenaline-filled blur of curving country roads as I dance the 300bhp of flat six around Hertfordshire before returning back to base in north London. Grasping the door pull and clambering out of the car, I wipe a layer of sweat from my forehead before turning to gaze at the 993 once more.

I stand gobsmacked by how raw and pure the 993 RS is to drive, yet it's nowhere near as agricultural as a 2.7 RS. It still feels so fast too, and I know on these roads that I've got nowhere near the limits of the car. The 993 RS is one of the most rewarding Porsches I've ever driven, though if you're in the market for one, you'll need our buying tips overleaf.







<b>Model</b>	<b>993 RS</b>
<b>Year</b>	<b>1995-96</b>
<b>Engine Capacity</b>	3,746cc
<b>Compression ratio</b>	11.5:1
<b>Maximum power</b>	300bhp@6000rpm
<b>Maximum torque</b>	355Nm@5400rpm
<b>Transmission</b>	Six-speed manual, rear-wheel drive
<b>Suspension</b>	
<b>Front</b>	MacPherson strut; coil springs; antiroll bar
<b>Rear</b>	Multi-link with telescopic dampers; coil springs; antiroll bar
<b>Wheels &amp; tyres</b>	
<b>Front</b>	8x18-inch; 225/40/ZR18
<b>Rear</b>	10x18-inch; 265/35/ZR18
<b>Dimensions</b>	
<b>Length</b>	4,245mm
<b>Width</b>	1,735mm
<b>Weight</b>	1,279kg
<b>Performance</b>	
<b>0-62mph</b>	5.0 secs
<b>Top speed</b>	172mph



## Engine and running gear



The air-cooled unit is fundamentally strong, but that tempting performance means an unimpeachable service history is a must. Being completely oil-tight is rare, although minor leaks from rocker and timing chain covers are an easy fix. Anything more serious – such as tired crankshaft oil seals – should be approached with caution, as repairs can easily head into the realms of a complete rebuild costing five figures, so get it inspected if you have even the slightest doubt. The RS was the first model to get VarioRam, and there should be no hesitation or flat-spots in the rev range if it's working properly.

Gearbox issues are rare unless it's been abused, but crunching synchromesh should ring alarm bells, as should signs of a clutch being past its best. The limited-slip differential is robust in normal use, but clonks or whines will need further investigation. Genuine brake discs are £700 a set, so check for wear and corrosion, and watch for sticking pads in the 'Big Red' calipers caused by corrosion between alloy calipers and steel inserts. Suspension bushes and strut mounts are the usual wear points – check they're not perished on low-mileage collector's items – while fluid leaks from the steering hydraulics aren't uncommon. The standard split-rim Speedline wheels cost around £1,200 each, so be wary of damage.

## Bodywork

At this rarefied level, expect perfect bodywork, although you'll need to check for the bugbears that affect many 993s. Corrosion around the front and rear screens is an issue – it's a screen-out job to fix properly – as is the dreaded 993 windscreen creak, which can be exacerbated by the stiffer RS setup, and clumsy screen

replacement may have allowed rot to set in. Clicking door check straps are a common niggle, and proper repairs cost around £500 per side, so it's worth checking that they haven't been bodged. Also, make sure that the rear bumpers are securely attached, as the mountings can rot. Despite their values, an RS will likely have seen action on the track, so you will need to watch for signs of previous accident repair, especially around the rear quarter panels, as they are tricky to replace, and check for dings in the lightweight panels. That ground-hugging front spoiler is susceptible to scrapes too, and a replacement bumper/spoiler costs £1,500 before fitting.



## Interior



Condition is everything, so it needs careful checking. The weight-saving regime means that many examples lack much in the way of luxury kit, although it could be added as an option. Make sure you know the correct specification of the car you're looking at, and check that all electrical items are working properly, including the air conditioning if fitted, although theoretically a lighter wiring loom and less gadgets should mean fewer issues. Originality is a key factor for many, so be wary of aftermarket modifications, especially those for track work – they don't suit everyone and can affect values. The heavily sculpted seats can pick up scuffs, and if you fancy the even more spartan Clubsport, it's worth trying before taking the plunge. The roll cage and harnesses look terrific, but you might be better off with less of a race-track refugee if you plan on any sort of regular use.

## Price range

**Project car:** £150,000  
**Daily driver:** £180,000  
**Weekend thrills:** £200,000  
**Concours:** £250,000



“At this rarefied level, expect perfect bodywork”

#### Maintenance

Minor service: £358

Major service: £900

Tyres: Front £189.62;  
Rear £288.20

(Prices courtesy of Paragon Porsche and include VAT)

#### Your £200,000+ 911: The other candidates



#### 2.4 S 1971-73

The further increase in capacity over the 2.2 was designed to enhance general driveability and, by decreasing specific output, reduce exhaust emissions. The 2.4 S was the first 911 to have a front lip or spoiler, and with only 20bhp fewer, the 2.4 S had almost matched the performance of the legendary 2.7 that was based on it. As such, this model has become the second most sought-after early 911, and values now exceed £100,000. Potential buyers need to be vigilant that the S is not in fact a rather more common T being passed off as an S. Check your engine codes – don't just look at the fan shroud!



#### 997 GT2 RS 2010-11

The 996 GT2 was built as a flagship model – a completely uncompromised rear-drive, manual-transmission Turbo 911 with no electronic safeguards. Having made its point, Porsche subtly reined in its wild child with the 997 version, which sported not only catchfence electronics, but also a more yielding ride setup. A lightened Motorsport department RS version became the 911 range-topper in 2010 with a claimed 620bhp. Harder riding and more demanding, the GT2 RS has much of the uncompromising 996 GT3 RS, with vastly more power and torque. Buyers should consider the practicalities of such a 911, which is as demanding on the track as it is on the street. A collector's dream.



## 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

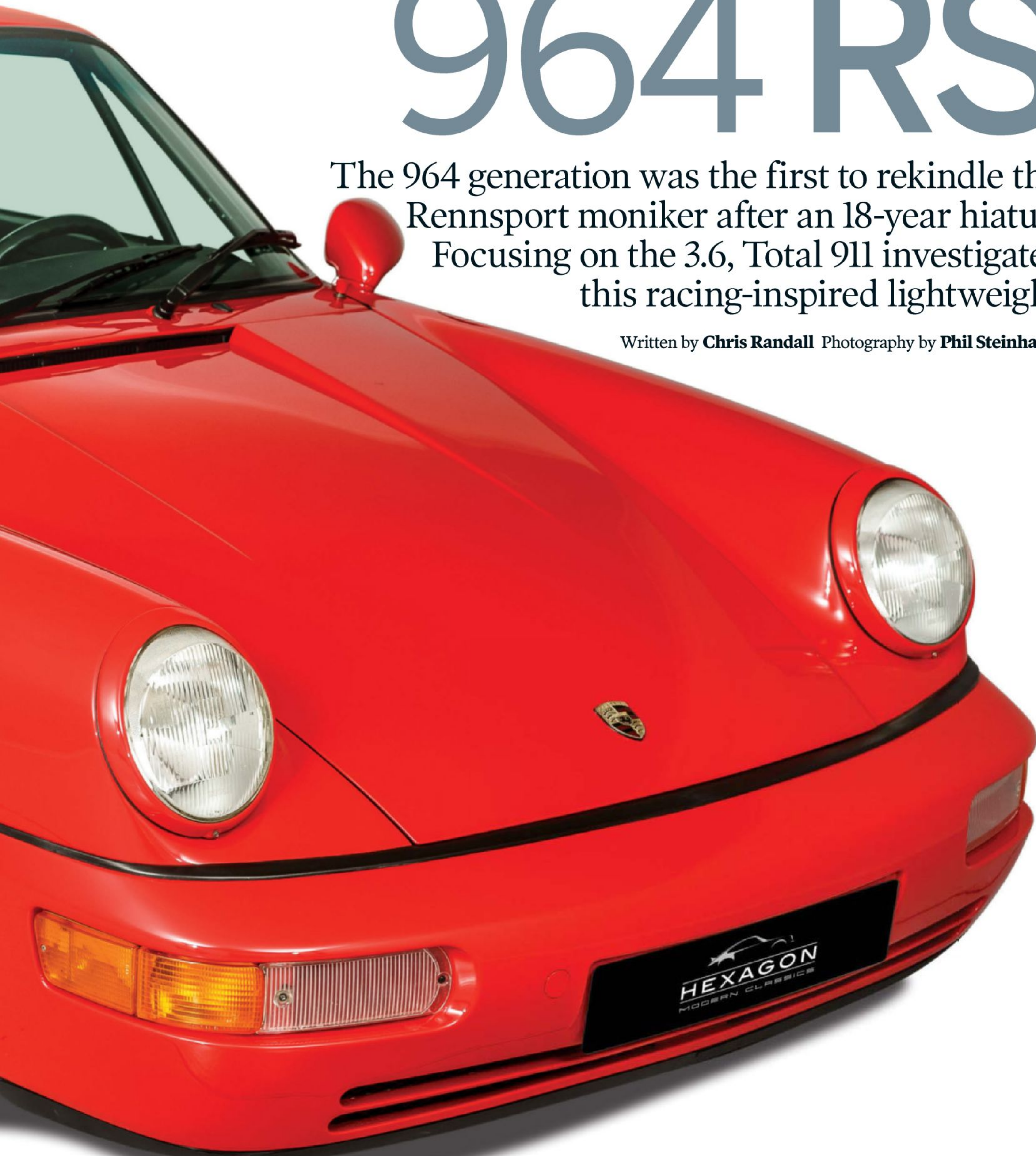
that measured 9x18 inches at the front and 11x18 inches at the rear. The 3.8 also marked the first appearance of 'Speed yellow' paint, although more subtle colours were available for those wishing to make less of a statement.



# 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

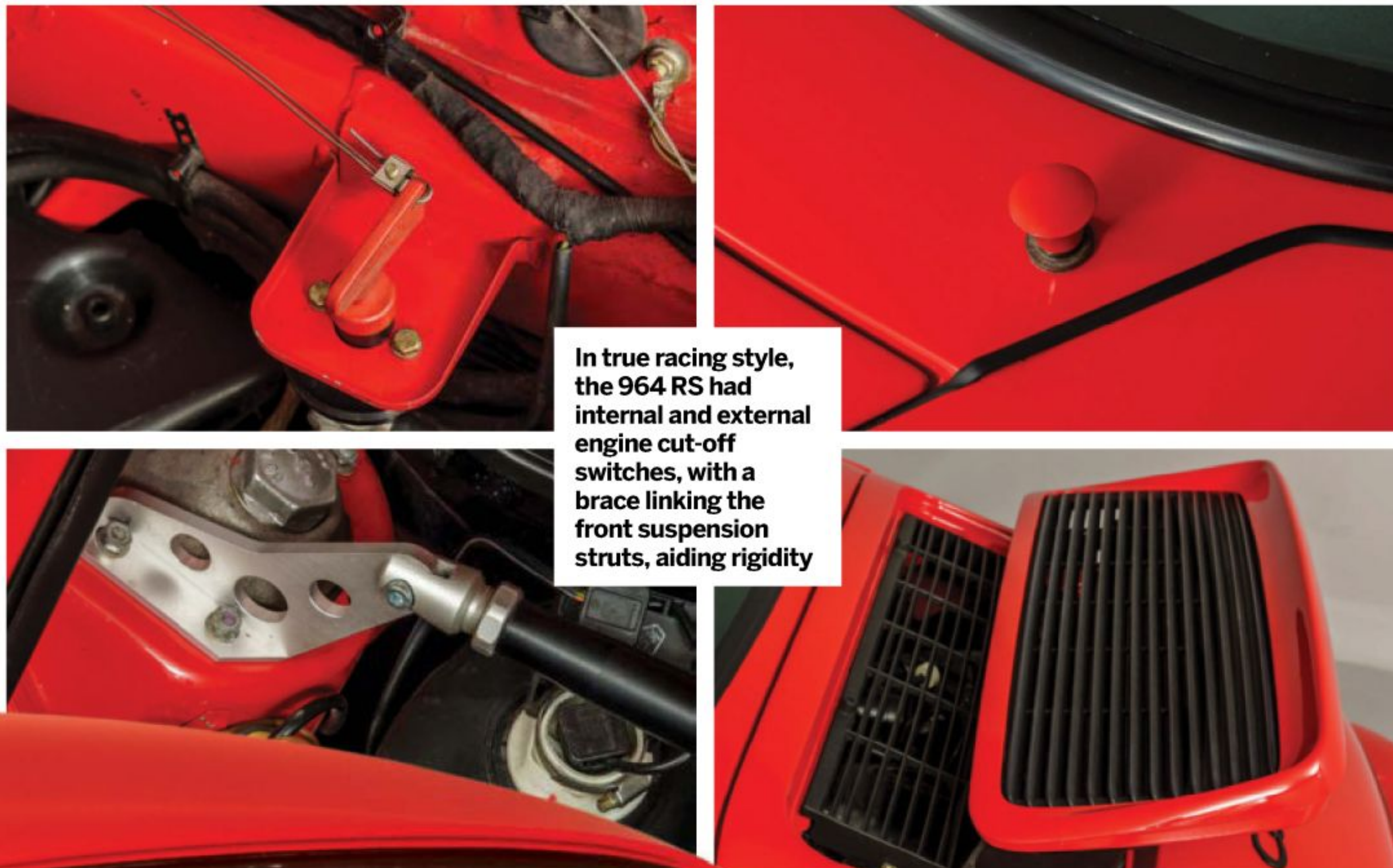
Motor Show, and went on sale later that year as a 1992 model, with total sales reckoned to be in the region of 2,400. Production would be split between four key variants – the majority of which (just under 2,000) would be in 'Sport' or 'Touring' specification, with the remainder in 'M001' and 'M003' 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 ➔

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<b>Model</b>	<b>964 RS</b>
<b>Year</b>	<b>1991-92</b>
<b>Engine</b>	
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
<b>Suspension</b>	
Front	MacPherson strut; coil springs; anti-roll bar
Rear	Semi-trailing arms with telescopic dampers; coil springs; anti-roll bar
<b>Wheels &amp; tyres</b>	
Front	7.5x17-inch Cup alloys; 205/50/17 tyres
Rear	9x17-inch Cup alloys; 255/40/17 tyres
<b>Dimensions</b>	
Length	4,250mm
Width	1,650mm
Weight	1,220kg (Sport/Lightweight)
<b>Performance</b>	
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





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## 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 Rohrl himself in its role as development car for suspension experts Bilstein – well, that's just the icing on the cake. **911**

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THE RS SAT 40MM  
LOWER THAN  
REGULAR 964S,  
ENSURING THE 17-  
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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**



## CARRERA RS 3.0

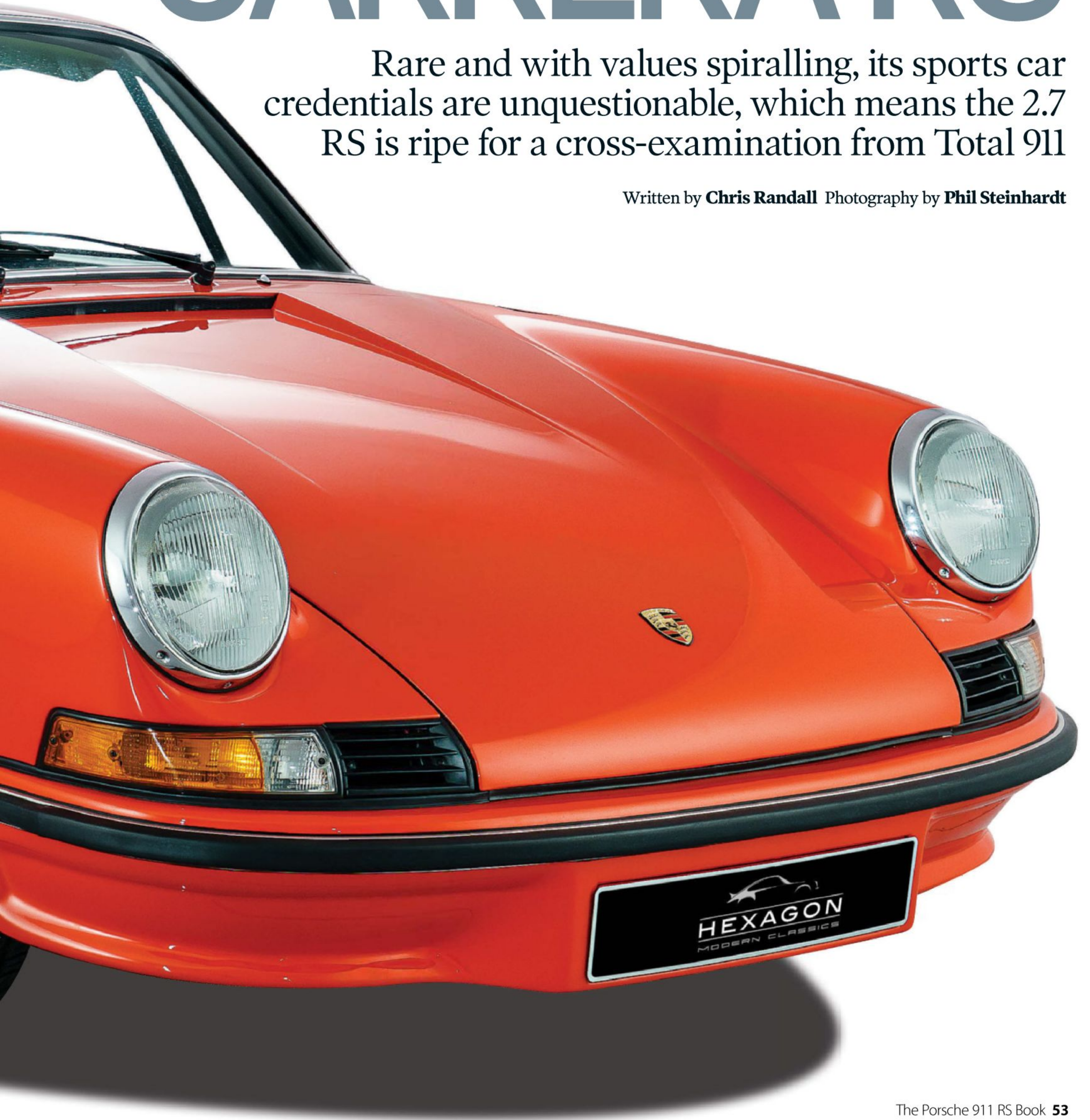
1974 would see a further development of the RS genre when Porsche introduced an even rarer model, so rare in fact that the right-hand-drive cars are identified by their colour alone. Just 109 3.0-litre RSs were made in total, and only six of those came with the steering wheel on the right – five came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



# CARRERA RS

Rare and with values spiralling, its sports car credentials are unquestionable, which means the 2.7 RS is ripe for a cross-examination from Total 911

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



**T**ake 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.

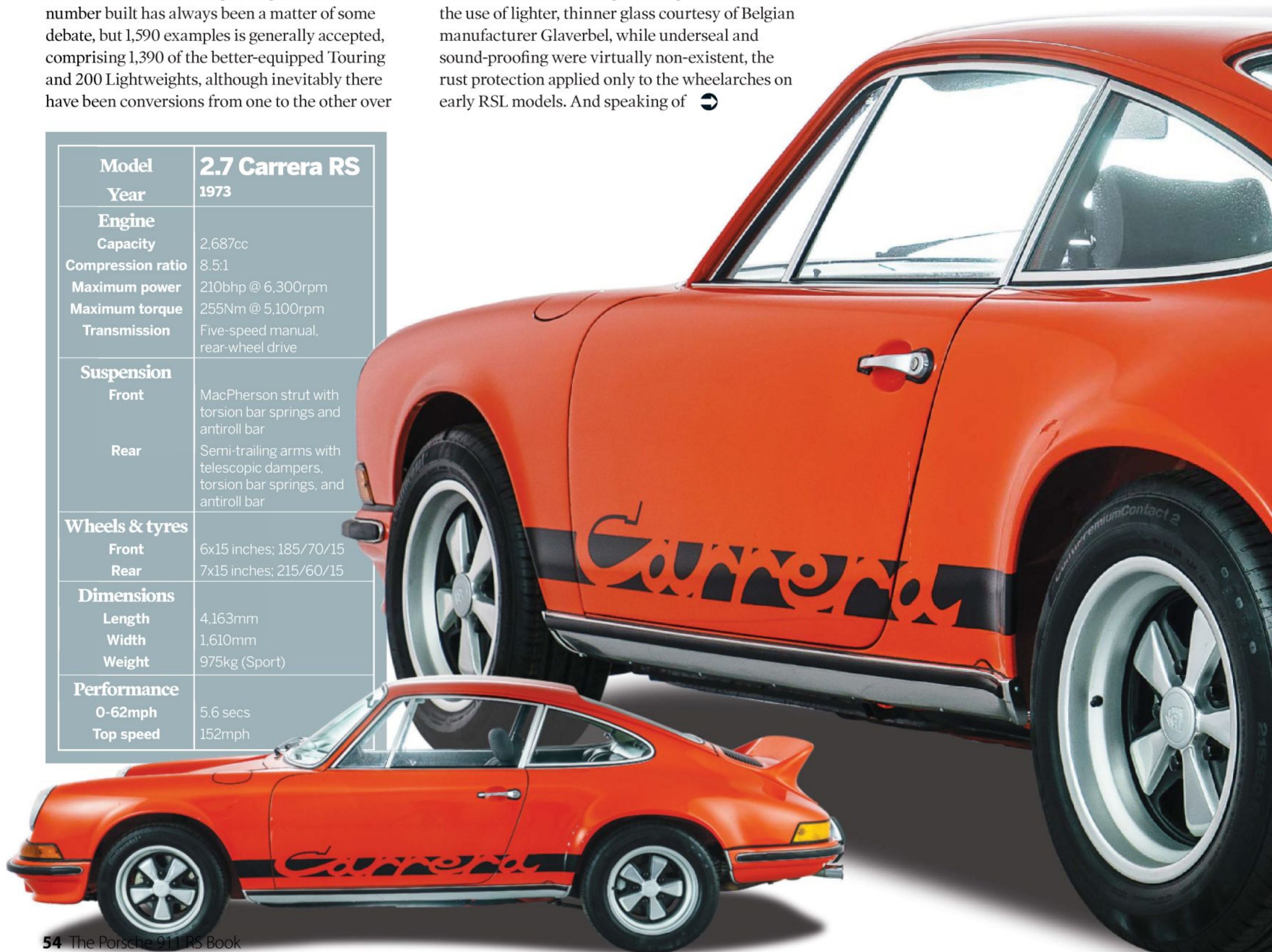
Firstly, the non-load bearing panels such as the roof, front and rear wings, and the front luggage compartment lid were formed from metal just 0.7mm thick when 1.0 to 1.25mm was the norm. And these were joined on Lightweight cars by bumpers formed from fibreglass, pleasingly unadorned items that lacked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

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<b>Model</b>	<b>2.7 Carrera RS</b>
<b>Year</b>	<b>1973</b>
<b>Engine</b>	
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
<b>Suspension</b>	
Front	MacPherson strut with torsion bar springs and antiroll bar
Rear	Semi-trailing arms with telescopic dampers, torsion bar springs, and antiroll bar
<b>Wheels &amp; tyres</b>	
Front	6x15 inches; 185/70/15
Rear	7x15 inches; 215/60/15
<b>Dimensions</b>	
Length	4,163mm
Width	1,610mm
Weight	975kg (Sport)
<b>Performance</b>	
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 ➡





“

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

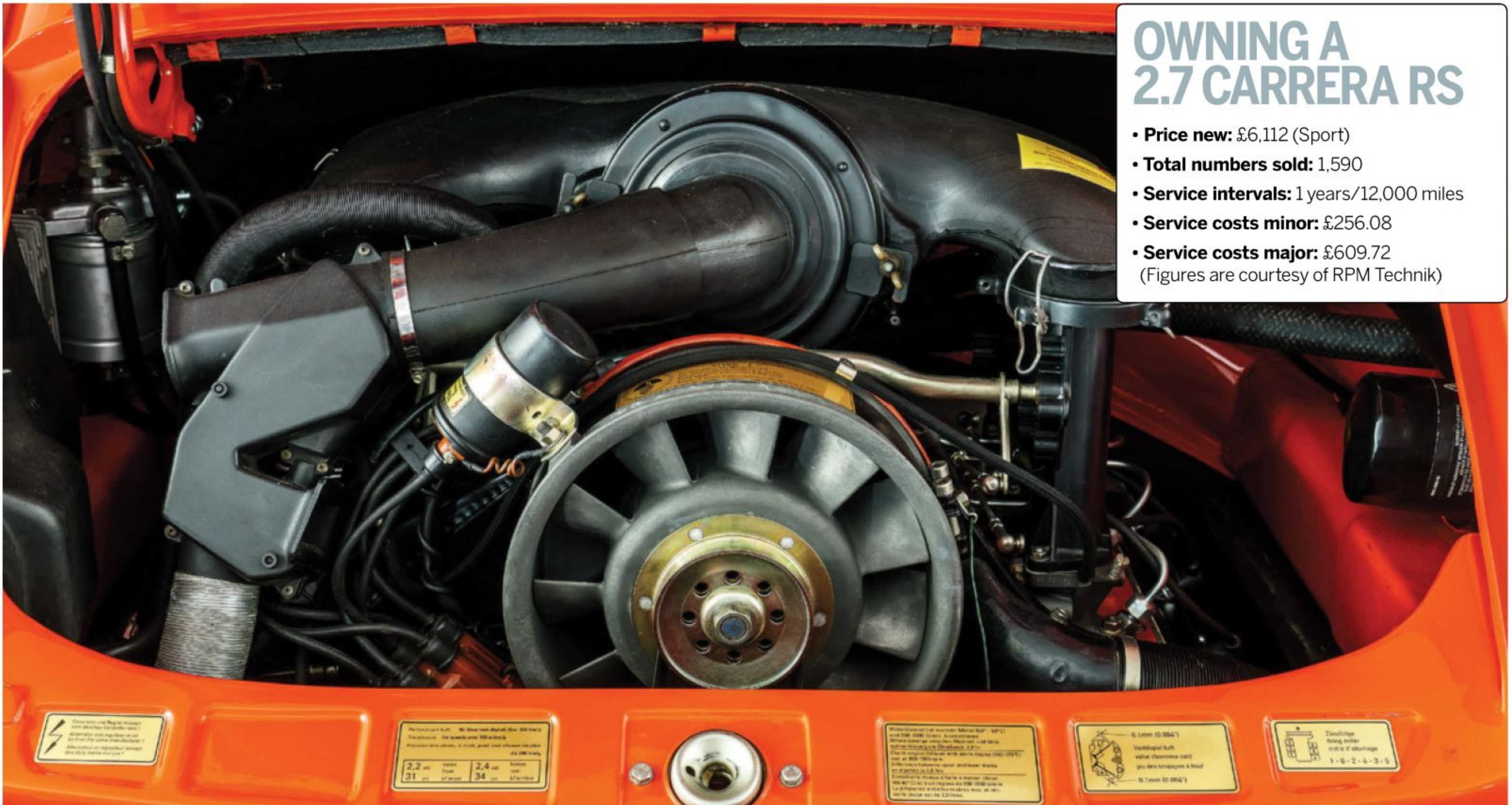
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### SPECIALIST VIEW

“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**



RJ10 FET

J2 RSL

# Rennsport showdown

Pitting the best 911 racers head to head in thrilling tests

**62 Rennsport masters**

How does the 3.8-litre GT3 RS compare to the halo RS 4.0?

**70 Lightweight superstars**

They may have matching livery, but how has the 996 GT3 RS evolved over the revered 3.2 Carrera Clubsport?

**78 Blood brothers**

Separated by 20 years of Rennsport evolution, what RS DNA is evident between the 964 and 997?

**88 Making an RS replica**

The real thing will soon set you back nearly £1 million, so here's how create your own 2.7RS for much less

**94 GT3 bloodline**

It's the car that forms the basis of the modern Rennsports, so what makes the GT3 so great?

**106 Iconic collection**

On track with four race-bred classics of monumental pedigree





# RENNSPORT MASTERS

600 miles away from the Geneva unveiling of the 991 GT3 RS, Total 911 fires up a fiery Mezger double act between two of the greatest-ever Rennsports to leave Weissach...

Written by **Lee Sibley** Photography by **Alisdair Cusick**





**“The RS 4.0’s low-down torque feels unlike any other 911 I’ve experienced”**

**R**ennsport: it’s a fabled and oh-so evocative Porsche designation that evokes a heady assemblage of unrelenting, motorsport-derived excitement at the wheel of a sportscar.

Quite rightly, the ‘RS’ sits at the pinnacle of the 911 bloodline: it is the quintessence of automotive finesse in a road car, the rawest, purest instance of breathtaking performance on four wheels. And right now, I’m pedalling one of the best.

My hands are clasped to an Alcantara-lined steering wheel as I point the 997 GT3 RS toward London. In true RS style, the driving experience is best described as raw. There’s no radio or air conditioning in here (saving six and 20 kilograms respectively) and the source of all noise is behind me: thanks to a perspex rear screen, the factory-fitted titanium exhaust resonates poetically back into the cabin at even gentle acceleration past 4,000rpm, and when that’s not engulfing my ears, rolling tyre noise from the huge 325 cross-section Michelin Pilot Sport Cups is doing the job. Naturally, I prefer the exhaust note.

Even on this fairly smooth blacktop, the GT3 RS’s ride is still firm. PASM (standard equipment here) is always selected when the engine is started, with switchable ‘Sport PASM’ providing shock-absorber tuning for what Porsche describes as ‘high driving dynamics’. That’s not needed just yet, but the variable suspension system nevertheless selects the appropriate damping level for each individual wheel according to a variety of parameters and conditions. It’s the same policy for the GT3 RS’s engine mounts with variable damping (PADM), ➔





## 997 GT3 RS 4.0

2012

### Engine

#### Capacity

3,996cc

#### Compression ratio

12.6:1

#### Maximum power

500bhp @ 8,250rpm

#### Maximum torque

460Nm @ 5,750rpm

#### Transmission

Seven-speed manual

### Suspension

#### Front

Lower wishbones and MacPherson struts with coil springs and dampers; anti-roll bar; PASM

#### Rear

Multi-link with parallel wishbones, rose jointed; coil springs and dampers; anti-roll bar; PASM

### Wheels & tyres

#### Front

9x19-inch; 245/35/ZR19 Michelin PS Cup

#### Rear

12x19-inch; 325/30/ZR19 Michelin PS Cup

### Dimensions

#### Length

4,460mm

#### Width

1,852mm

#### Weight

1,360kg

### Performance

#### 0-60mph

3.9 secs

#### Top speed

193mph



## 997 GT3 RS 3.8

2010

### Engine

#### Capacity

3,800cc

#### Compression ratio

12.2:1

#### Maximum power

450bhp @ 7,900rpm

#### Maximum torque

430Nm @ 6,750rpm

#### Transmission

Seven-speed manual

### Suspension

#### Front

Lower wishbones and MacPherson struts with coil springs and dampers; anti-roll bar; PASM

#### Rear

Multi-link with parallel wishbones; combined coil springs and dampers; anti-roll bar; PASM

### Wheels & tyres

#### Front

9x19-inch; 245/35/ZR19 Michelin PS Cup

#### Rear

12x19-inch; 325/30/ZR19 Michelin PS Cup

### Dimensions

#### Length

4,460mm

#### Width

1,852mm

#### Weight

1,370kg

### Performance

#### 0-62mph

4.0 secs

#### Top speed

192mph



## The difference: GT3 RS 3.8 vs 4.0 in numbers

	RS 3.8	RS 4.0	Difference
Rear wing angle in standard form (degrees):	6	9	3
Top speed (mph):	192	193	1
Power (bhp):	450	500	50
0-62mph (secs):	4.0	3.9	0.1
Weight (kg):	1,370	1,360	10
Price difference new (£ sterling):	108,123	128,466	19,343
Downforce generated at top speed (kg):	170	190	20
Bhp per tonne:	328.4	367.6	0.32
Nürburgring lap time (seconds):	7:33	7:27	6
CO <sub>2</sub> emissions (g/km):	314	326	12



“Priced at £128,000, Porsche made no profit from each of the 600 RS 4.0s made”


which ranges between an almost rigid setting and a decoupling of sorts of engine from body.

As a result, every permissible camber and crevice in the road is keenly felt; even running over cats eyes when changing lanes throws up a distinct ‘bump and shudder’ body sensation normally only encountered in classic 911s. As you can see, then, everything about the 3.8-litre GT3 RS’s chassis is geared for the race track, and so is the performance. As a result, on the public road I’m constantly having to short shift through the Rennsport’s six forward gears to try and keep on the legal side of the maximum 70 miles per hour speed limit. It’s as frustrating as it is tantalising: this GT3 RS is teasing me as to its performance credentials and, akin to a fly to a light, I have to be explicit in resisting the overwhelming urge to plant my right foot to the floor and watch the tacho swing all the way round to the redline, at least until these semi-slick Michelins are rolling over the asphalt of the proving ground later in the day. First though, I’ve a rendezvous in north London to meet a 997 GT3 RS 4.0.

Widely considered as the greatest Porsche to grace the public road, the RS 4.0 project was borne out of a surplus of 997 GT3 RS parts and a desire from Weissach to reward only its most loyal of GT3 customers with a special car that pushed the capabilities of the famous Mezger engine to its very zenith, all in the quest for ultimate performance driving. Priced at £128,000, Porsche made no profit from each of the 600 RS 4.0s made. It was based on the already breathtaking 3.8-litre 997 GT3 RS, though a number of revisions were bestowed upon the RS 4.0 across its engine, chassis and aerodynamics. The engine is derived from Weissach’s GT3 R race car, increasing the stroke from the 3.8 GT3 RS from 76.4 to 80.4 millimetres. The chassis has rose-jointed rear suspension arms with helper springs for the unsprung mass, and the RS 4.0’s downforce is improved at the front thanks to dive planes channelling air up and over the front corners, while the thicker rear spoiler has a natural angle of nine degrees instead of the 3.8-litre Rennsport’s six. Additional weight saving has taken place with plastic screens from the B-pillar

back (the rear quarter panels in the 3.8 are glass), while the front bonnet consists of little more than a carbon fibre composite with a smattering of paint and a stickered-on Porsche emblem rather than the metal crest atop the alloy bonnet of the 3.8.

This delightfully meticulous assortment of tweaks makes for fascinating reading, but a glance at the performance statistic suggests only minimalist gains. Top speed in the RS 4.0 is only increased by one mile per hour to 193 compared to the 3.8, while just 0.1 of a second is shaved off the 0-62 miles per hour dash. But as ever with Porsche and Weissach in particular, the magic isn’t solely in the performance times, but in the mechanical details that help instigate them. The RS 4.0 is the ultimate in this, as I’m about to find out.

Arriving at the premises in Hendon where this particular RS 4.0 resides, I get my first glimpse of the famous white bodywork of Porsche’s ultimate 911 Rennsport. I am utterly starstruck. Pulling up behind the huge rear wing (sitting on taller supports) my feeling of excitement quickly transcends into veritable awe. It’s as if an 

## “The steering feel and weight is the best I’ve encountered in a 911”

international rock star has entered the vicinity: take Slash of Guns n’ Roses fame, for example, casually rolling on set complete with that famous top hat, a lit cigarette hanging from his mouth, clutching his famous Gibson Les Paul, ready to rock in front of us.

Needless to say, it’s no great wrench to swap the cockpit of the RS 3.8 for that of the RS 4.0. Apart from the obvious note of the dashboard being flipped – this is a left-hand-drive example originally delivered to the principality of Monaco – there is much change. Packed with substantially more equipment than the comparatively spartan 3.8 GT3 RS, the utility of the RS 4.0’s interior is more wholesome in almost every category. Bizarrely though, this means while the 4.0 gains Schroth five-point harnesses as well as a comprehensive roll

cage extending above the driver’s head and down the ‘A’ pillar, it also features air conditioning and PCM 3.0. So, what this cosmopolitan example lacks in sheer pared-back character, it more than makes up for in its ability to provide an accomplished drive for road and track. Butzi would be proud.

En route to the proving ground, it doesn’t take long to acclimatise to the RS 4.0 (the 3.8-litre Rennsport I arrived in is being piloted by Josh close behind). The clutch pedal is just as weighty as the 3.8 and the PCCBs will eventually let out their usual squeal under light braking in traffic, but there’s no doubt the RS 4.0 is useable on the public road, even if that rose-jointed rear suspension makes the ride incredibly crashy over less-than-amiable road surfaces. So far, so good: Porsche generally hasn’t sacrificed usability in the hunt for outright performance.

However, it’s away from the public road where any 911 Rennsport can really exert its excellence, a sentiment to be echoed here by both the brilliant 3.8 and 4.0-litre 997 GT3 RSs at Longcross Proving

Ground. With warm tyres – pressures aren’t changed here to complement the ‘fast road’ chassis setup of both examples on test – I jump back in the 3.8-litre GT3 RS and take to the ‘Snake Pit’, a fast yet twisty stretch of wide, smooth asphalt with sweeping corners that vary in length, angle and elevation. It is the ultimate test of any car’s chassis.

Heading down the flat straight before turn one, I finally get to bury the accelerator pedal into the floor and the GT3 RS responds by shooting forwards mercilessly. I eventually turn in hard in third gear, coming off the gas to allow the front to tuck in for the apex. The steering feel and weight is simply tremendous, possibly the best I’ve encountered in a 911: the car responds expertly and immediately to every minute adjustment I make at the wheel in searching for that perfect line, and the chassis retains its composure through the long corner as the Michelins dig in hard for grip. The GT3 RS feels so incredibly lithe from the rear (aided by those active engine mounts, no doubt) and the scream of the Mezger engine as I exit the corner and get back on the loud pedal has my hair on end. This is absolutely exhilarating.

Pushing hard through this succession of corners for the next half hour or so, one or two things become apparent with the 3.8. First, it’s actually

**Below left:** Decorative ‘PORSCHE’ logo on the rear of the white RS 4.0 connotes the spectre of stepping into a works 911 RSR

**Below right:** Pared-back interior of the 3.8-litre GT3 RS is full of motorsporting purpose



very easy to drive on or near the limit. The more you push, the more you can feel the GT3 RS hunkering down to the road surface, the extreme aerodynamic styling proving it is no gimmick. However, the front end can still feel a little vague when pitching in for a turn, a 911 idiosyncrasy that is perhaps amplified here in the midst of such an otherwise exemplary driving machine.

Piloting the 997 GT3 RS 4.0 through the same bends throws up a surprisingly different experience, so much so that I'm taken aback by the starkness of it. The additional torque in the RS 4.0 is immediately noticeable: where the 3.8 flat six's typically peaky nature means you have to work hard to exhume to the full thrust of its audacious power (it really gets going past 4,000rpm), the RS 4.0 is quicker to get shifting, with peak torque arriving some 1,000rpm sooner, or at 5,750 compared to 6,750rpm in the 3.8.

Though the 3.8-litre GT3 RS isn't slow by any stretch, the RS 4.0 is possibly the fastest naturally aspirated 911 there is (without launch control) to a degree that its low-down torque feels almost unlike a 911. This means that corners are sometimes tackled in different gears in the RS 4.0 – the beautiful short-shift gearbox is the same as the 3.8-litre variant, complete with 13 per cent shorter ratios than that of the 997.2 GT3 – though the caveat to the extra torque available means you must

be wary of getting on the power too early when exiting a corner in the RS 4.0.

Even the sounds emitted from both boxer engines are altered: if the engine rumble of the 3.8-litre GT3 RS is comparable to a throaty bark, the RS 4.0 is more akin to a meaty growl, so different is the tone. There's also a heightened induction noise in the RS 4.0. Though I've spent the previous week marvelling at the audible induction gasp in the 997 GT3 RS 3.8 thanks to its perspex rear window and removal of sound deadening, the same gasp under acceleration in the RS 4.0 is more pronounced. I put this down to the removal of double-flow air filter housings in favour of larger conical items in the 4.0.

An excessively stiff chassis displayed earlier by the RS 4.0 on road is converted handsomely on the proving ground too, helping the car settle quicker into a corner while the additional aero tweaks at the front and rear help it hunker down to the floor with up to 190 kilograms of downforce behind it. As a result, the RS 4.0's svelte style as it carves through all manner of corners and straights and cambers and flats is simply enchanting.

It is obvious that both 997s are scintillating modern Rennsports. As you'd expect, there's plenty of feedback constantly relayed from the identical Pilot Sport Cups, allowing you to really lean against their limit when cornering fast. The sensation is like racing a Cup car. Even better, these 997s still

have an abundance of that classic 911 trait where the driver is able to pivot, mid-corner, from the back of the car using the accelerator pedal, something the more mid-engined 991 iteration will surely lack.

So, how to place these two exquisitely scintillating 911 GT3 RSs? Well, the 4.0-litre is sheer Rennsport royalty, the king of kings with breathtaking performance, boasting the biggest Mezger-derived engine sitting in the back for good measure. Typically undervalued by Porsche on its release, the RS 4.0's stock has risen so significantly in its short life that acquiring one today would have a greater impact on your bank balance than even a Carrera GT purchase, a phenomenal achievement for a modern-day 911 just half a decade old.

But if the 4.0-litre is the regal GT3 Rennsport, then the 3.8 is the people's champion. While the RS 4.0 is buoyed by its limited production run of just 600, a 3.8-litre build run of some 1,500 examples means they are significantly less rare, with reciprocating values lower at around £150,000. This means that, most importantly, these Rennsports are more likely to still be regularly driven – and hard.

Whatever your preference, the last two 997s added to the GT3 RS heredity are sensational, and two weeks on from the test my senses are still captivated by their steer. It's going to be fascinating to see where Weissach has taken the Rennsport story from here. Your move, 991. **911**

“If the 4.0-litre is considered the king of kings, then the GT3 RS 3.8 is the people's champion”



# LIGHTWEIGHT SUPERSTARS



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

Written by **Neill Watson** Photography by **Chris Wallbank**



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

The 2.7 RS, introduced after ten years of 911 production and well documented in recent editions of this magazine, achieved motorsport fame

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

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

At the time, the Clubsport seemed to slip by with little to celebrate in competition – and visually too, you have to say it's not exactly awe-inspiring

at first glance. The changes are individually very small, including deletion of electric seats, an alloy spare wheel instead of a steel item, and no sunroof, radio or air conditioning. At face value it reads like weight saving OCD style, but add this all up and you'll realise that Stuttgart managed to shave 50 kilograms off the base 3.2 Carrera. While this may not seem like a lot, it should be noted that this was on a sports car that was marketed during the 17-year Rennsport hiatus – proof in itself that Porsche has always harboured an obsession with lightweight 911s throughout its half-century of existence. ➔



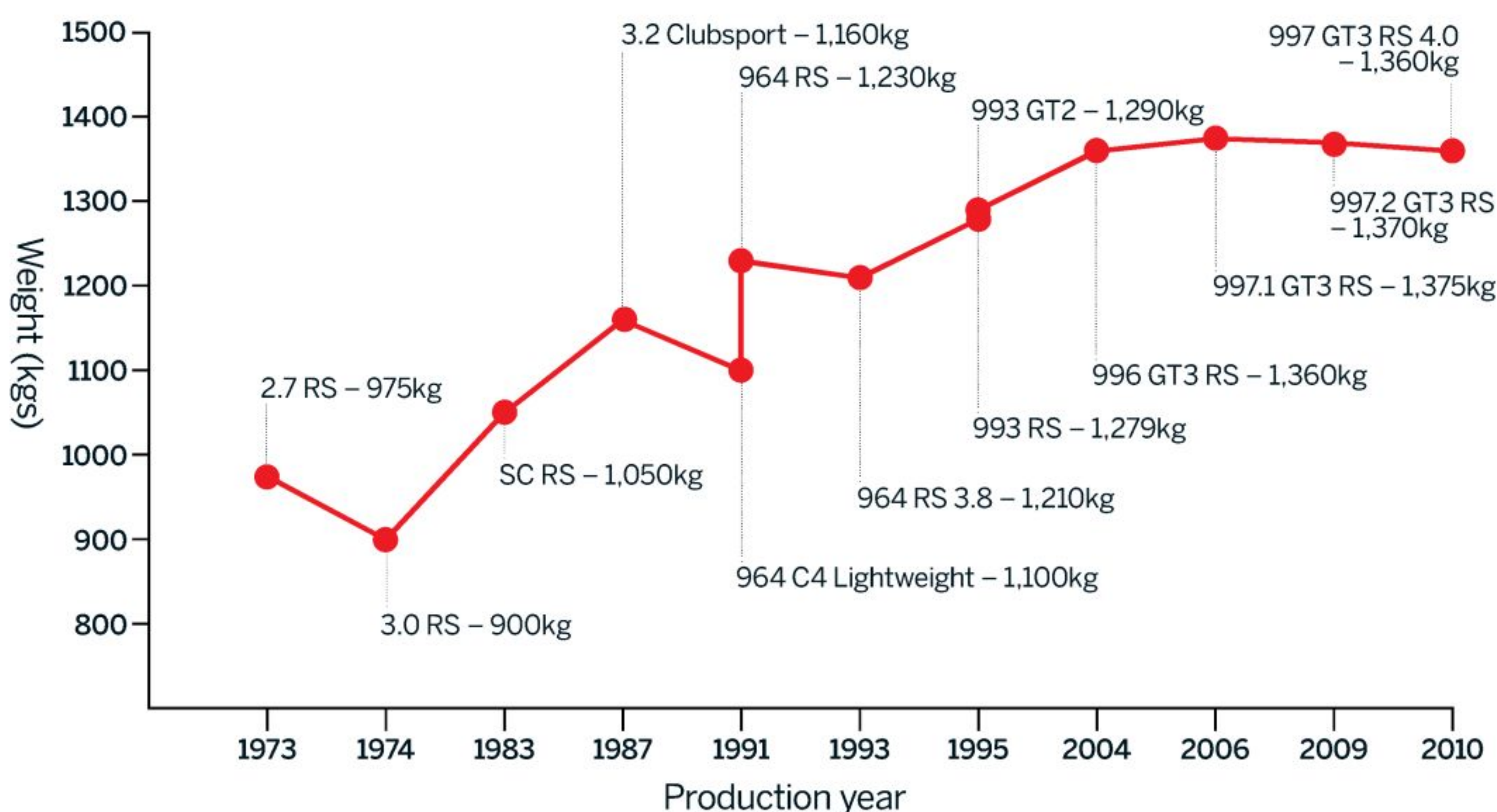
They may be vastly different in appearance and even execution, but these 911s share the same ethos

The famous 964 and 993 Rennsports duly followed in the Nineties, but it was the 996 GT3 RS that brought lightweight 911s into the modern era of water cooling. In contrast to the 3.2 Clubsport, the 996 GT3 RS's announcement in 2004 was spectacular, despite shelving only 20 kilograms off the weight of the lightest 996 Gen2 GT3. Further iterations of GT3 RS followed, of course, each shaving vital kilograms from the performance-enhanced GT3 variants on which they were based. This marks out a formidable lineage of lightweight 911s to date then, with each iteration enjoying soaring market values to boot. Some view this as changing forever the image of the 911 as the 'everyman super car', while to others it's an acknowledgement in wider circles that the Porsche 911 has been under-valued for many years, and is now finding its true place as a collectable car.

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

Among the vast expanse of our Yorkshire airfield, there's a significant difference in size between the Clubsport and Rennsport 911s: the Clubsport looks so small alongside the GT3 RS. There's a significant difference in the shades of white too. The Clubsport's Carrera white appears a little more creamy than the stark GT3 RS paintwork. ➡

## Timeline of the lightweight 911







**3.2 Clubsport**  
1987

3,164cc  
10.3:1  
231bhp @ 5,900rpm  
284Nm @ 4,800rpm  
Five-speed manual

Longitudinal torsional bar springs; dampers; antiroll bar  
Semi-trailing arms with torsion bar springs; dampers; antiroll bar

7x15-inch Fuchs; 195/64V/R15 tyres  
8x15-inch Fuchs; 215/60/VR15 tyres

4,291mm  
1,652mm  
1,160kg

5.1 secs  
152mph

**Model**  
**Year**

**Engine Capacity**  
**Compression ratio**  
**Maximum power**  
**Maximum torque**  
**Transmission**

**Suspension**  
**Front**  
**Rear**

**Wheels & tyres**  
**Front**  
**Rear**

**Dimensions**  
**Length**  
**Width**  
**Weight**

**Performance**  
**0-62mph**  
**Top speed**

**996 GT3 RS**  
2004

3,600cc  
11.7:1  
381bhp @ 7,400rpm  
385Nm @ 5,000rpm  
Six-speed manual

MacPherson strut with antiroll bar  
LSA multi-link; antiroll bar

8.5x18-inch GT3 wheels; 234/40/ZR18 tyres  
11x18-inch GT3 wheels; 295/30/ZR18 tyres

4,435mm  
1,770mm  
1,360kg

4.4 secs  
190mph



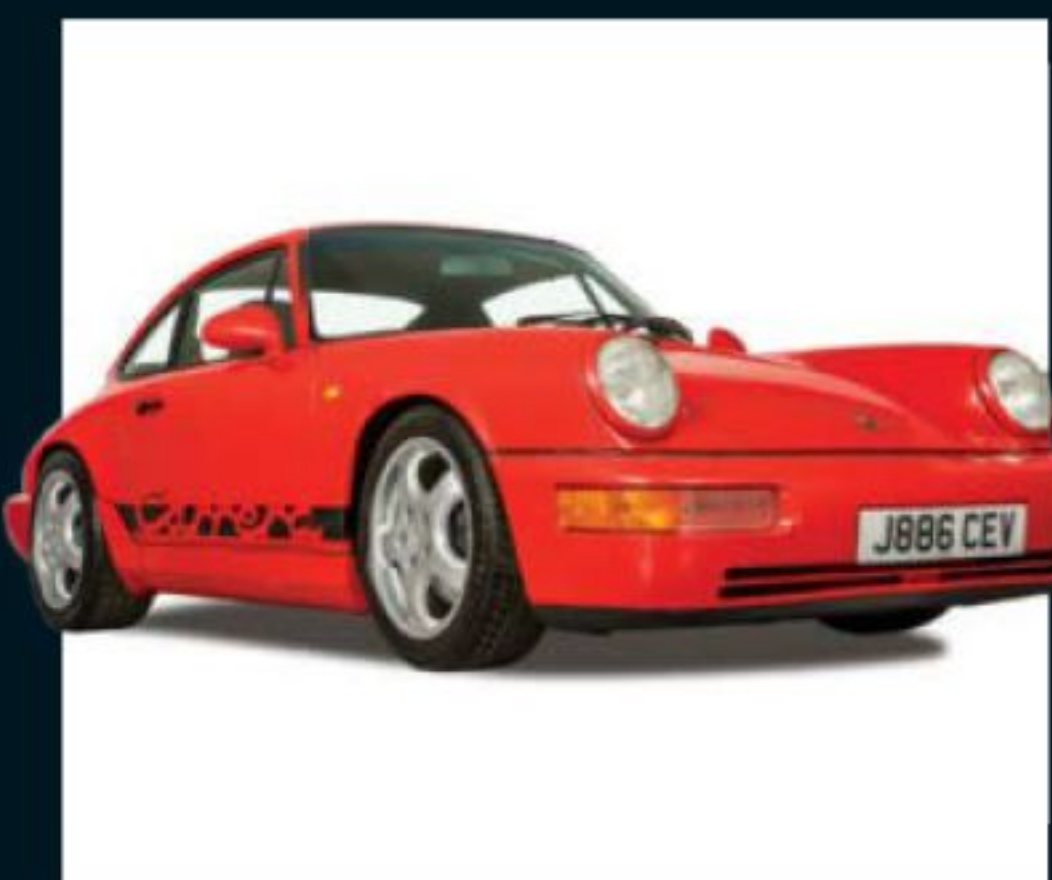
## Five other lightweight superstars

### 5. A 'build your own' project



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

### 4. 964 RS 3.6



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

### 3. 1974 3.0 RS



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

### 2. 997 GT3 RS 4.0



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

## 1. 964 C4 Lightweight

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

Written by **Andrew Krok**



The bulk of the 964 C4 'Leichtbau' interior has been ditched in favour of racing-orientated paraphernalia

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

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

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

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

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

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

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



Porsche describe the first GT3 RS as an uncompromising vehicle with the purity of a genuine racer



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

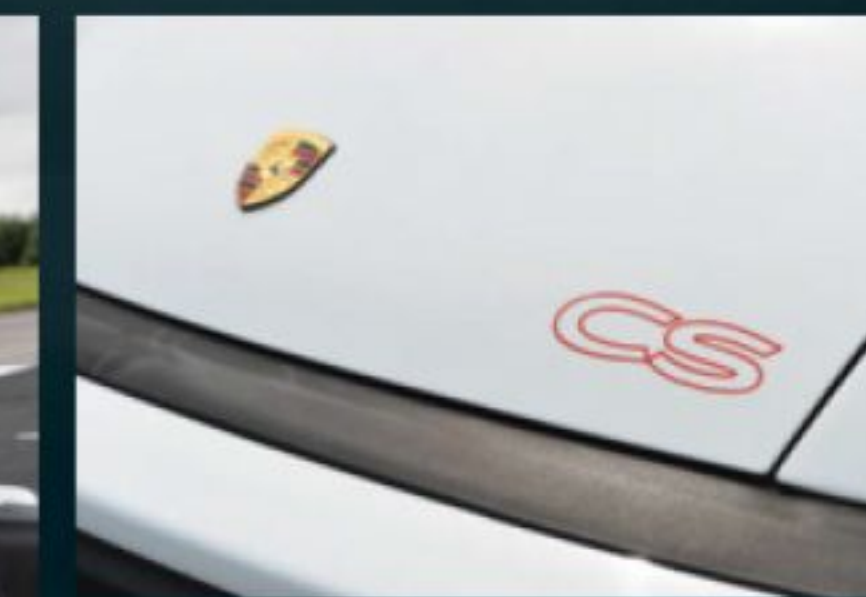
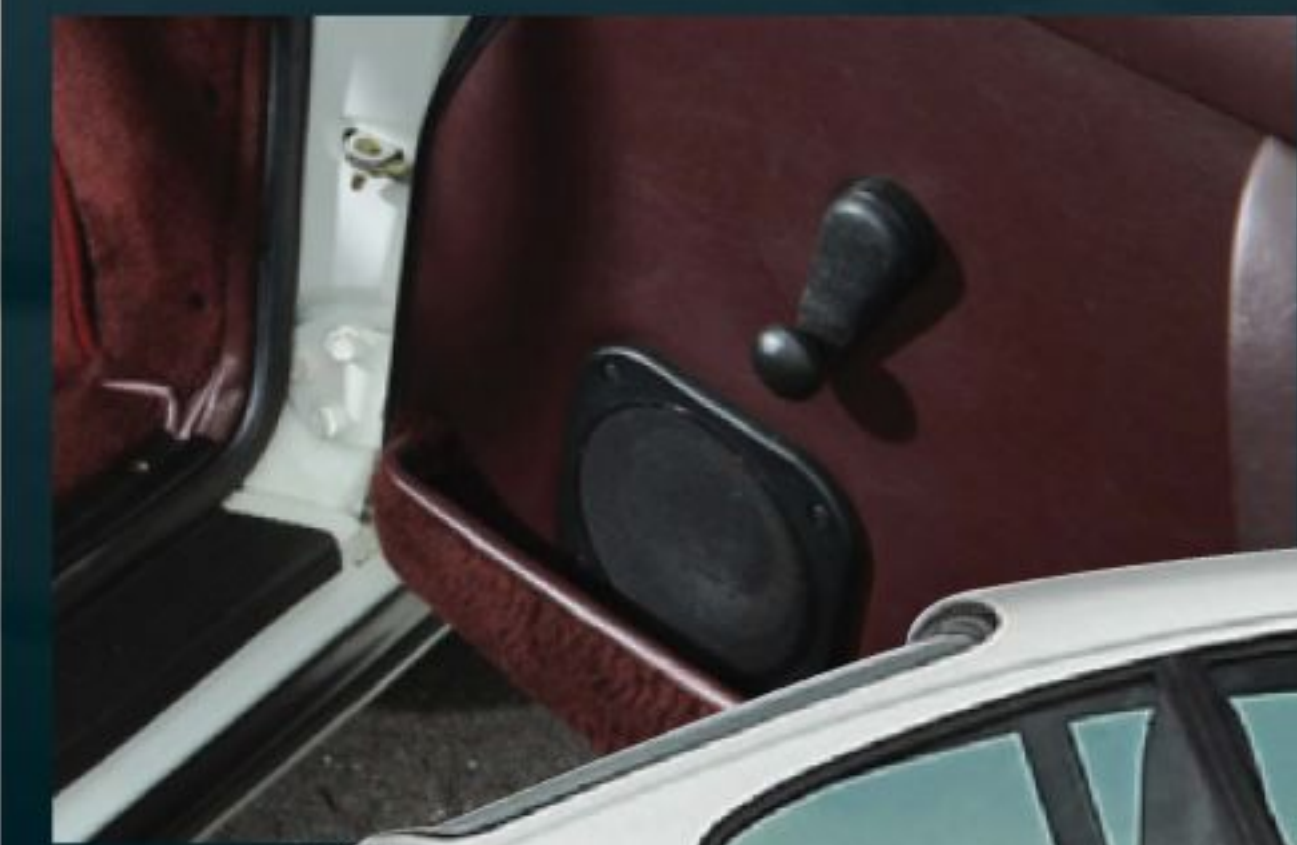
There appears to be a stiffness from those dampers that a standard 3.2 doesn't have. Turn in to medium-speed corners is incredibly crisp, while a lack of sound deadening enhances that lovely sharp engine bark, encouraging you to press on as you

push hard out of a corner. Much to my surprise, a tangible difference is felt from the norm. There's a drumming in my seat back connecting me with the engine and a throttle response that is very sharp. It's almost as if someone had carefully blueprinted it and mounted it on stiffer engine mounts.

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

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

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



Although the Clubsport isn't as hardcore as a Rennsport, it's still a bona fide 911 lightweight



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

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

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

Very, very motorsport, the GT3 RS is every bit a racing car for the road, with this car running updated EBC brake pads to give your thigh muscles a workout too. The lightweight treatment applied

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

GT3 RS suspension could be set to Cup Car positions on the top mounts, and I'm wondering if this car is set like that. Visually, it has significant rake when viewed from the side. For sure, the track-focused castor and camber settings mean the car needs significant attention under braking to stop it diving off the heavy camber. All the while, that Mezger engine is filling my ears with vividly raw flat-six sounds. I'm beginning to think that the black carpets are actually just painted on the floor, such is the noise. This is actually quite hard work, while

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



ahead the Clubsport is nodding and swaying over the undulations in a far more compliant way. I'm beginning to regret not snapping that harness on.

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

A direct comparison between these two lightweight superstars is quite irrelevant: the cars are from different generations. But do they actually have anything in common when you drive them?

They're several generations apart, the GT3 RS with significantly more power and from a newer era of the 'modern' Porsche 911. And yet their philosophy does bring about a feeling of being distant cousins. It's that feeling I always get when I explore the tactility of lightweight 911s.

The Clubsport probably has more in common with the older 2.7 RS, quite classically Porsche in feel, with the GT3 RS feeling very modern. And yet the ethos of weight saving and attention to detail common to both allows that tactile interface to shine through in a remarkably common way in both cars. There's no denying that they're related, and indeed that they're both lightweights, each achieving the same objective of superior performance and a very direct driving experience by shedding weight. The Clubsport accomplishes this in a far more subtle way, and of the two is the more surprising – an abject lesson on how

attention to detail can accomplish so much. For me, this is the surprise of the day. The GT3 RS is just as I recall it: a motorsport hero designed to achieve homologation and GT racing victories. You wouldn't really want it as your daily driver, and yet the Clubsport undeniably could be. I find it sad that this car's value means it will now rarely be driven.

Indeed, the other common theme these two share is value – an interesting comparison that is worthy of thought, with Clubsport values remaining as low as £35,000 until recently. The GT3 RS was always going to be a blue-chip value car, and never really dropped much below its original invoice price, yet as I write this, both of these cars have just been sold for very similar sums of money: in excess of £100,000. If you're a GT3 RS owner then, it's business as normal. If you're a Clubsport owner, you've either been incredibly fortunate or quite remarkably far-sighted. **911**



# BLOOD



# BROTHERS

The more things change, the more they stay the same, as we found out taking two of the best driver's 911s on the open road

Written by **Josh Barnett** Photography by **Alisdair Cusick**



**O**n paper, this shouldn't even be close. They may both be united under Porsche's fabled Rennsport banner, but the statistics suggest these are two markedly different beasts; 18 years and nearly 200hp separates these virtuosi.

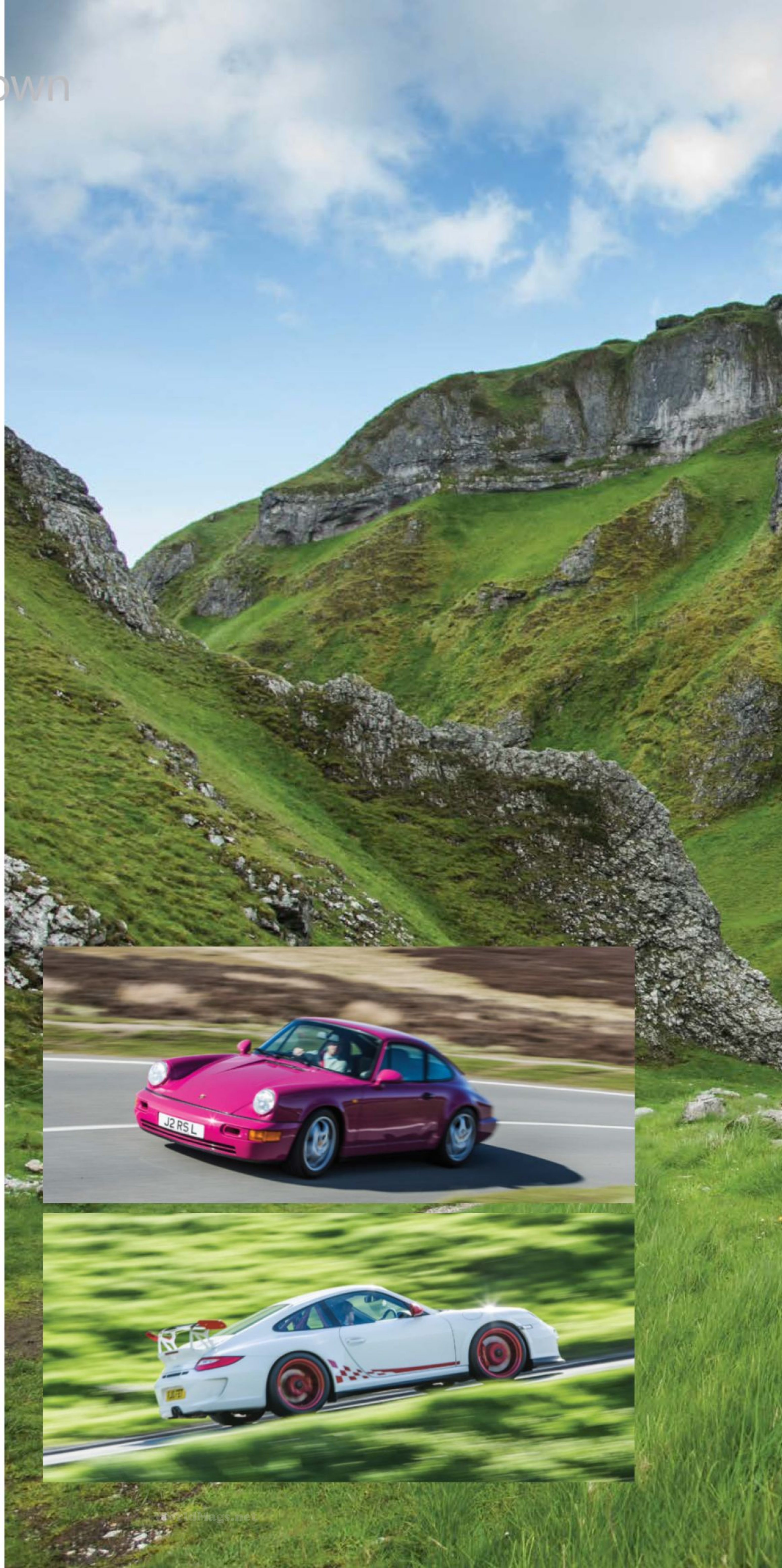
One is air-cooled, a bastion of the Carrera RS legacy; while the other was, until page 18 of this magazine, at the pinnacle of the hardcore GT3 RS genus. Both are gods, but they exist in diametrically opposed worlds. When we first considered this head-to-head, the prices of these two RS icons were at least roughly comparable. However, even the values of this dynamic duo have diverged in recent months, appearing to leave me with two (admittedly glorious) neunelfers at my disposal, but without a central tenet connecting them.

Released in 1991, some 16 years after the last true Rennsport 911, the Porsche 964 Carrera RS had big shoes to fill. Descended from the instantly legendary 2.7 RS and its full-fat brother, the 3.0 RS, the original 964 RS was tasked with continuing an impressive legacy. On the proverbial paper though, the 964 didn't look man enough for the job. Compared to a bog-standard Carrera 2, power was officially only hiked by a measly 10bhp and, while the car's mass was reduced by up to 120 kilograms (depending on trim specifications), the 964 RS wasn't as visually arresting as its Rennsport brethren. For one thing, where was the outlandish wing that had become an RS staple?

By comparison, the 997.2 GT3 RS was instantly admired upon its release just six years ago. Like the 964 RS, the 997.2 GT3 RS was the third iteration of its respective sub-brand but, while the former was the first of its kind for over a decade, the 997 was simply a follow-on to two superb water-cooled RSs: the 996 GT3 RS and the 997.1 GT3 RS. Complete with lairy decals, centre-lock wheels and a massive, motorsport-inspired rear wing, its success was guaranteed from the moment it rolled off the production line in Stuttgart. Its air-cooled cousin certainly seems to have its work cut out today if it wants to impress.

I had, until this point, never driven a 964 Carrera RS. In fact, I had only ever driven a 964 Carrera 2. Once. Despite this, the elder of the two Rennsports immediately fits me like a glove. Dropping into the as-new bucket seats, all the controls are straight to hand. With no electronic settings to play with, it's a simple case of slide in, strap up and switch on. And, when I do flick the key to engage the starter, the 3.6-litre flat six snarls into life with rumbling baritone, quite unlike any of its contemporaries. Its tone is rich, with the lack of rear seats and sound deadening behind me amplifying its effect throughout the cockpit. A few blips of the razor-sharp throttle highlights that despite the understated aesthetics, this is a true road racer, just like the 997.

Heading out of the sleepy village of Hathersage and onto the open roads of the Peak District National Park, the 964 is raring to be unleashed. ➡









With a challenging set of twists ahead, I relent, burying the throttle into the bulkhead.

My god, no 25-year-old has the right to chase the horizon this fervently! While not as whiplash-inducing as the modern machines, the 964 RS's pace over the straight tarmac is unrelenting, with a smooth slug of torque through the flat six's mid range. The effect is amplified by the close-ratio G50 gearbox, with the second, third and fourth ratios sitting closer than they do in a standard Carrera. The clutch is perfectly weighted too, making each shift a joy. Lift, clutch, snick the next gear and back on the gas in one transition.

Christian Ayres, the custodian of these two incredible RSs, is currently piloting the GT3 RS, leading the way through some of the Peak's finest roads, and while the 997 (with its extra performance) may be racing ahead on straights, the 964 certainly isn't losing face given its greater age. Christian isn't hanging about, but as we enter our first real cornering test, the gap begins to stabilise. Faced with a succession of parabolas, the 964 begins to show its true colours.

Despite only just getting behind its wheel, I'm instantly able to start exploiting the delectable chassis balance, pitching the car towards the apex

with gusto. The steering's weight is perfectly judged, with just a hint of understeer on the initial turn in. The stiffened front damping allows the tyres just enough slip to inspire the confidence to carry ludicrous levels of speed into each corner. Yet, combined with the increased anti-roll control, the steering remains wonderfully precise and accurate. Despite its classic proportions and weight distribution, the steering doesn't go alarmingly light at these speeds, providing plenty of steering feel. It helps that Christian's car is just 6,300 miles old, but it's still apparent that the 964 RS is possibly the perfect tool for attacking a UK B-road.

For some 911s, carrying this level of entry speed would cause all manner of problems through the middle of a corner, yet the 964 is simply not fazed. Unlike later RS 911s, the 964 has a surplus of grip compared to power. You're not likely to find yourself doing long, lazy, oversteery drifts in it. Instead, you can immerse yourself in the most user-friendly Rennsport Porsche has ever built. From mile one, I've been instantly at ease in the 964 in a way that I've never experienced in any other car before, with the chassis allowing me to focus on keeping my momentum high. It's the classic 911 experience polished and purified to perfection.

All the control weights are ideally judged, unlike some of the other performance-orientated 911s, where things like the clutch feel artificially



**Left:** The 964 RS's classic lines are even more prominent when contrasted with the various aero addenda on the 997 GT3 RS



## 997.2 GT3 RS

2010

### Engine

#### Capacity

3,800cc

#### Compression ratio

12.2:1

#### Maximum power

450bhp @ 7,900rpm

#### Maximum torque

430Nm @ 6,750rpm

#### Transmission

Six-speed manual

### Suspension

#### Front

Independent; MacPherson strut; telescopic dampers with coil springs; anti-roll bar; PASM

#### Rear

Independent; Multi-link; telescopic dampers with coil springs; anti-roll bar; PASM

### Wheels & tyres

#### Front

9x19-inch alloys; 245/35/ZR19 tyres

#### Rear

12x19-inch alloys; 325/30/ZR19 tyres

### Brakes

#### Front

380mm drilled and vented discs

#### Rear

380mm drilled and vented discs

### Dimensions

#### Length

4,460mm

#### Width

1,852mm

#### Weight

1,370kg

### Performance

#### 0-60mph

4.0 secs

#### Top speed

192mph



## 964 Carrera RS

1992

### Engine

#### Capacity

3,600cc

#### Compression ratio

11.3:1

#### Maximum power

260bhp @ 6,100rpm

#### Maximum torque

310Nm @ 4,800rpm

#### Transmission

Five-speed manual

### Suspension

#### Front

Independent; MacPherson strut; telescopic dampers with coil springs; anti-roll bar

#### Rear

Independent; Semi-trailing arms; telescopic dampers; coil springs; anti-roll bar

### Wheels & tyres

#### Front

7.5x17-inch magnesium wheels; 205/50/R17 tyres

#### Rear

9x17-inch magnesium wheels; 255/40/R17 tyres

### Brakes

#### Front

320mm drilled and vented discs

#### Rear

299mm drilled and vented discs

### Dimensions

#### Length

4,250mm

#### Width

1,650mm

#### Weight

1,230kg (Sport)

### Performance

#### 0-60mph

5.4 secs

#### Top speed

162mph

heavy. The brakes are similarly impressive. Sure, they lack the ultimate pulling-up power of later 'Big Reds', yet they are easily the most sure-footed stoppers I've ever used on an air-cooled car. The pedal is stiff and reasonably short, giving plenty of feedback to my right foot as I anchor up for the next dose of dynamic brilliance.

I could drive – and wax lyrical – all day in the 964 RS. It's so superbly judged. Before I jumped behind its wheel, I thought that the 964 RS was overrated, but after thrashing around for 100 miles, the hype that helped prices to snowball last year is well and truly worth believing. In the real world, it is probably one of the only 911s that could have kept up with Christian in the 997.2 GT3 RS. That, I think, says it all.

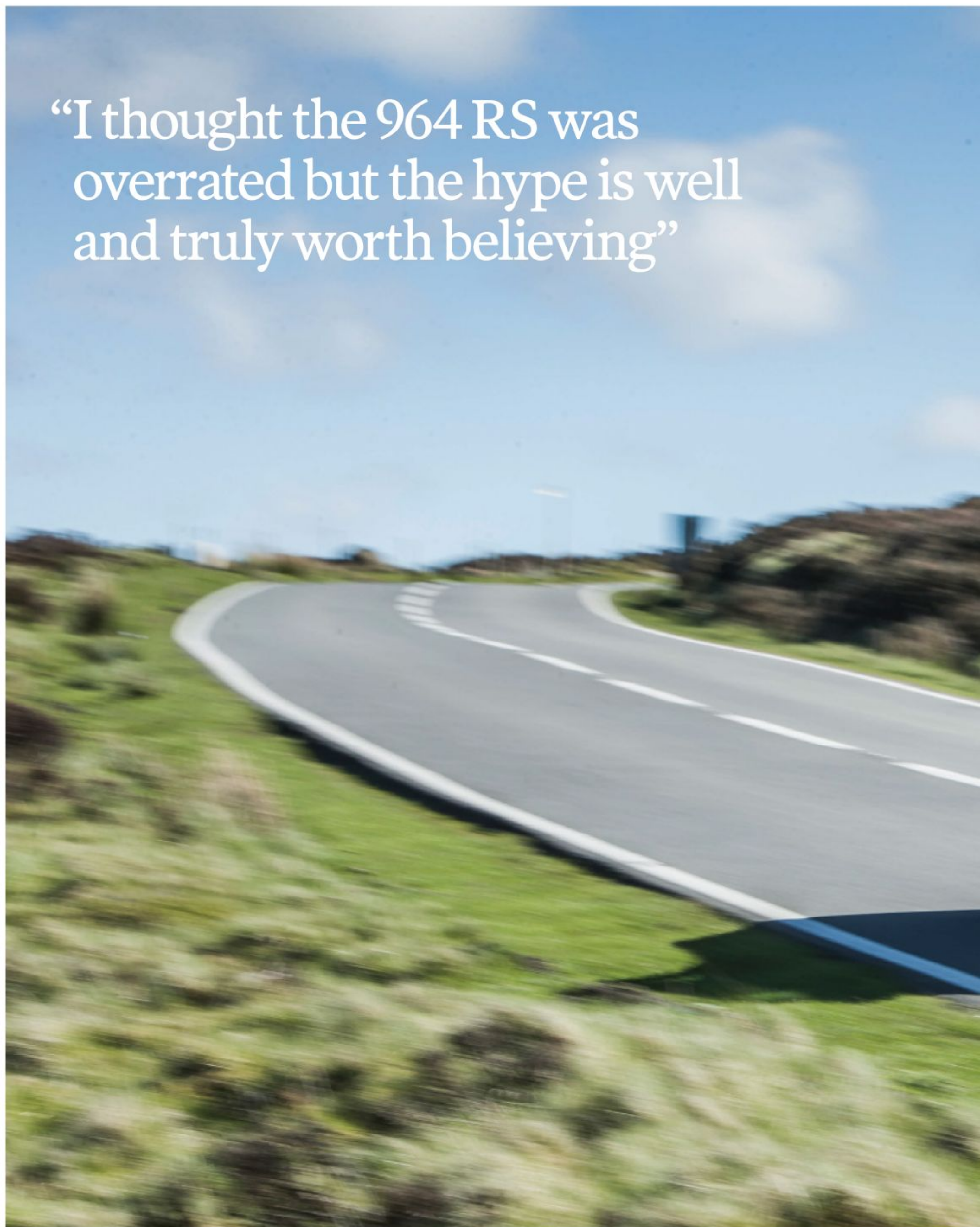
Age has been kind to its looks too. The 964's small footprint and squat stance (40mm lower than a Carrera 2) gives it a purposefulness that the 997 instead achieves through its various aerodynamic addenda. They are very different beasts, yet they both strive towards the same goal. That much becomes clear as I switch seats and buckle up behind the GT3 RS's Alcantara steering wheel. Like the 964, the single-mass flywheel chatters away with the car in neutral, and as I get underway, the throttle is not just razor sharp; it's positively cut throat.

The Mezger engine packs one hell of a punch too, giving the 997 plenty more power than grip. From 3,000-4,000rpm, the induction noise permeates throughout the cabin before the idiosyncratic howl from the motorsport-derived motor kicks in. Like the 964 RS's powerplant, there's a noticeable kick to the delivery between 4,800-5,200rpm too. However, while the 964's transition to this higher level of shove is smooth, the 997 punts you forward with an almighty blast.

With so much extra velocity, I'm glad that the 'Big Red' stoppers in the GT3 RS are some of the best in the business. The pedal is even shorter and harder than the 964, with superb bite that helps me shed speed deep into each braking zone. If I had one qualm, it would be that the pedals don't feel ideally placed for heel-and-toe downshifts on the road; you really need to be pushing the brake pedal through the bulkhead to get it comfortably aligned with the throttle. It's clear that while the 964 RS is a road car for the track, the 997 RS is a track car for the road.

After the instantly gregarious relationship I had developed with the 964, the 997 feels much more nervous as I tackle the Peak's twisting tarmac. The front end is so much stiffer (in both its damping and its anti-roll), providing almost too much ability on turn in, certainly at road speeds, where ➔

“I thought the 964 RS was overrated but the hype is well and truly worth believing”

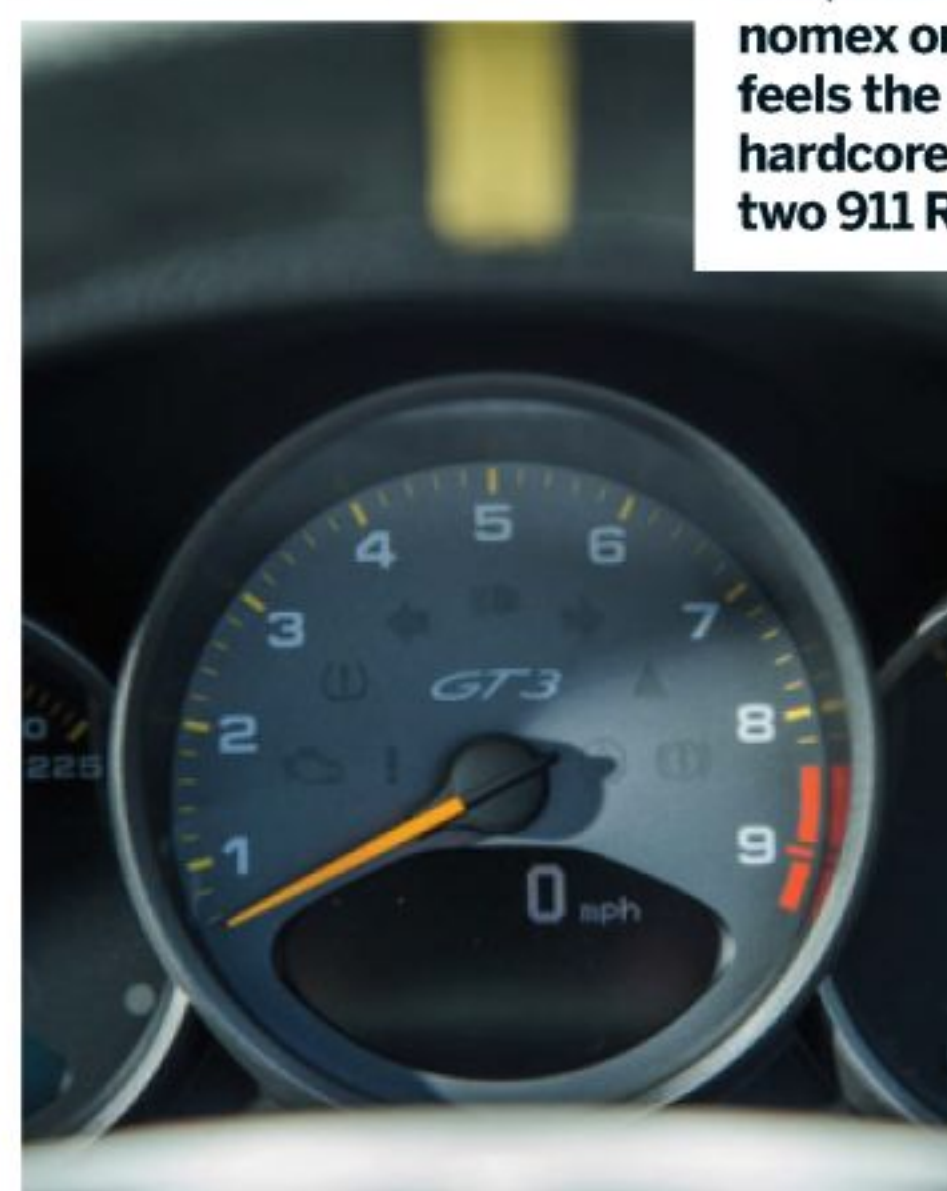


**Right:** On the open road, the 964 RS's instant user-friendliness makes it a very real rival to the 3.8-litre GT3 RS

**Far Right:** With nearly 40 years of Rennsport expertise behind it, the second-generation 997 RS is the ultimate road rocket



Both interiors are pared back to the bones but the 997, with its use of nomex on the seats, feels the more hardcore of these two 911 Rennsports



## “Andreas Preuninger’s team really has turned things up to 11 since water was deemed greater than air”

the limits of adhesion aren’t being tested to their maximum. The GT3 RS noses into each corner like a hound after a scent, dialling straight in towards the apex before I’ve even had a chance to fully comprehend my new trajectory.

It takes me a while to recalibrate my brain, but when I finally do, the 997 really does feel as

if it is painted to the road. The more I become reacquainted with the car’s talents (it was only a few issues ago that I found myself piloting Porsche’s press car), the more I feel like I’m able to exploit its worth. However, while I’m pushing more on corner entry, the 997’s ability to kick the tail out on the exit requires a more measured approach compared to

the 964. With 450hp on tap, it feels a bit more point-and-squirt, especially as the car’s stiff suspension settings don’t give me the confidence to get on the power early. Combined with its pointy front end, the 997 feels more like a mid-engined car, while the 964 retains more of the classic 911 character.

This is where the 964, in the real world, was coming into its own. It’s so easy to get on with that you really can exploit 75, 85, maybe even 95 per cent of its talents within 20 miles of spirited use on the road. By comparison, the GT3 RS is more stand-offish, testing your talents and only fully unlocking to those it deems worthy, and on a stage befitting its capabilities. The 964 wants to shake your hand, while the 997 wants to rip it off.



Don't take this the wrong way though; this is not a bad thing. Far from it. The 997's hidden reserves make it possibly the more appealing as a long-term prospect. At the end of another large loop of the Peak District, I still don't feel like I've got on top of the car. It's left me wanting more, wanting to further my skill behind the wheel. Despite its extra size, the water-cooled Rennsport feels noticeably more nimble. While the 964 was providing a heavy workout for my shoulders, the 997 simply requires some smooth wrist work to flick it from corner to corner.

The GT3 RS's extra dynamic aggression also shines through in its aesthetic appeal. The classic red-on-white colour scheme and that table-sized

wing let you know that this car means business before you've even opened the door. In reality, I suppose I knew I was in for a challenge the moment I stepped out of the 964 RS. Andreas Preuninger's team really has turned things up to 11 since water was deemed greater than air.

There's part of me that thinks the 997.2 GT3 RS is a little too much. After a while, it may become so, but paired with the 964 they probably create the perfect two-car RS garage. The early car is an inviting day-to-day proposition, while the 997 is the weekend toy that would make a pulse-racing tool for track work. I don't think I could choose between them; I'd have to own both, because in reality they are two sides to the same coin. Despite their

obvious differences aesthetically, dynamically and statistically though, there is something intrinsic that bonds these two Rennsport heroes. They are the two greatest driver's cars Porsche has ever built, with an appetite for involvement that most 911s will never be able to match.

After a truly incredible day – such stuff as dreams are made of – the statistics that suggested this would be a one-sided fight are well and truly put to the wind. Weissach may have made huge strides since the switch to water-cooling – the 997.2 GT3 RS is undoubtedly a huge technological leap forward from the 964 Carrera RS – but this Porsche 911 pair are perfectly suited to one another. Blood truly does run thicker than water. **911**



# SPOT THE DIFFERENCE

One's the real deal, the other's a remarkable replica costing ten times less. It's easier than you think to build a good RS evocation, as Total 911 investigates...

Written by **Kieron Fennelly** Photography by **Alisdair Cusick**





One of history's ironies is that the most mythical of production Porsches, the Carrera 2.7 RS, almost never saw the light of day: Porsche's conservative salesmen were nervous about offering such a reduced-equipment model, but they were overruled by new CEO Ernst Fuhrmann, who could see its potential.

Porsche made the homologation minimum of 500, only to have to turn out another 1,090 to meet unprecedented demand. This 911 captured the imagination like no other; it was clearly the fastest, properly useable sports car you could buy, and something of a style icon to boot: affluent buyers

flocked to it. Many RSs were pressed straight into Group 3 racing, and the RS only started to fall from favour in the mid Eighties as sports car fashions changed – the wedge look came in, and on the track the later 3.0-litre 911s were faster. However, interest in the original RS never really evaporated, and by the mid Nineties its value was rising steadily. This was partly because of the approaching end of the traditional air-cooled 911, and collectors' views that the RS 2.7 was the purest and most desirable model.

While there had always been an aftermarket for updating 911s – such as fitting impact bumpers, or even for crude Beetle-based 911 copies with glass fibre shells – no one had really attempted a true 911 ➔





It's a replica, but the average passer-by would be hard-pressed to tell the difference

## “A poor donor 911 is a false economy, because it inevitably turns out to be more expensive with remedial work”

copy from Porsche parts. But as nostalgic interest in the early air-cooled cars gained ground, there were enthusiasts unable to aspire to an original RS who began to think in terms of an accurate copy.

Autofarm's Josh Sadler is usually the man credited with the first backdated version, or 'recreation', as he calls it. He founded Autofarm in 1973, discovered the 911 soon afterwards, and between selling, rebuilding and racing them rapidly became the independent 911 specialist. Indeed, Josh says jokingly that they used to run the company to fund their 911 racing habit, but all those years of competition certainly ensured Autofarm's 911 renown. More than 20 years later, Josh, whose

abiding interest remains very much that early 911, experimented with backdating. Starting with a sound 3.2 shell, Autofarm replaced the impact bumpers with original Porsche glass fibre front and rears, fitted the correct 6 and 7x15-inch Fuchs and simplified the interior with bucket seats without seeking to reproduce exactly the original RS cabin. The engine was left standard, and suspension fitted with the original front antiroll bar among other specific backdating.

The engineering integrity of Autofarm's concept, which ensured an authentic pre-G series 911 'feel' as well as displaying a quality of finish not previously associated with such reproductions, opened a niche:

for roughly a third of the price of a genuine RS, or the same price as a new 996, enthusiasts could enjoy vintage 911 motoring without the usual worries about maintaining originality at all cost.

The original RS 2.7 (on the left in our opening picture, if you hadn't guessed) is now worth £500,000, and people look upon it not as a feat of engineering, but as an untouchable investment. So when they see an RS, they automatically assume that it's a replica. This attitude means the top end of the replica market has credibility, a situation which suits Autofarm because its carefully rebuilt product is evidently far from being simply a rebodied SC or 3.2. To the specialist, such cars never feel right, and in this business few rebuilds are worse than a 911 that purports to be an RS or other early 911, yet manifestly behaves like a tired SC. The devil's in the detail then, so just how do you turn a humble impact-bumper 911 into a good replica of one of the motoring industry's great icons? Here's your definitive checklist... ➔





## 1. The donor car

Mikey Wastie, Projects manager at Autofarm, is clear that the donor car needs to have an absolutely sound chassis. This is crucial: if the chassis is corroded to the point where the kidney bowls are rusted through, this is structural with potentially a huge bill for remedial work before the conversion can even begin. Autofarm strongly advises customers to buy the best SC or 3.2 they can find: if that means spending £25,000-£30,000, the total replica build

cost is going to be quantifiably less than a £10,000-£15,000 base car potentially needing much extra labour and time to get it up to scratch. A poor donor 911 is a false economy, because it inevitably turns out to be more expensive. For absolute authenticity, a series E or F (ie pre-Impact Bumper) shell should be used, but these are so rare and expensive in appropriate condition that Autofarm would recommend restoring rather than converting them.



## 2. The cabin

Backdating the cabin depends very much on how far the customer wants to go and how much he is prepared to spend. The white replica in our photography is an older Autofarm recreation: here, the owner specified a 911 he could use for touring in Spain, so Autofarm left the later 3.2 ventilation outlets in the dashboard (the dashboard itself is extremely difficult to backdate, and Autofarm rarely attempts to). Similarly, the air conditioning has not been deleted. The original RS seats are unobtainable now, so Autofarm uses aftermarket items: mating them with the slightly wider subframes of the G and later series is a challenge, so the choice is really around which aftermarket seat will fit with least intervention. Rear seats are deleted, the carpet relaid in a lightweight material also used in the boot; for absolute authenticity, an RS Lightweight has to have black headlining, and it should also have static seat belts. Both Lightweight and Touring RSs had door cards, available today from Porsche. The RS uses a leather pull strap and a grab handle from a Fiat 500.



# Rennsport showdown

## 3. Powerplant

The heart of the RS is, of course, the engine. The RS's 2.7 is closely related to the 3.0 SC and 3.2 designs, but it is not the same: the later engines use a heavier crankcase and in standard form, although neither revs with quite the zest of the mechanically injected RS, performance is very similar, and the Bosch LE-Jetronic 3.2 in particular has ten per cent more torque and horsepower.

The Autofarm car photographed here has a 3.5-litre engine that requires larger pistons and a machined crankcase, which isn't visible externally, although its aftermarket exhaust is. An authentic replica RS would have the one pipe outlet, which is a straightforward fit and available from Porsche.



## 4. Chassis

For road use, Autofarm does not systematically change the brakes; on the white photography replica, the owner specified the popular Boxster 2.5 front brake conversion. He also wanted the 16-inch Fuchs that fills the wheel arch better, and to avoid changing the gearing (the standard RS had 15-inch, so a lower rolling diameter) lower-profile tyres were fitted. With the suspension, Autofarm only intervenes if the customer requests a harder setup. The owner of the white car sought a road specification: the weight saved by removing the impact bumpers means the car feels slightly stiffer anyway, and the standard-issue Boge dampers were replaced by competition-orientated Bilsteins – a typical backdating modification. Autofarm fitted the original front antiroll bar, and would also fit the stiffer 3.2 torsion bar. Another subtle upgrade is Turbo trackrod ends, improving steering without visibly affecting originality.



## 5. Gearbox

A pre-1987 model 911 used the 915 gearbox with Porsche's famous sliding sleeve synchromesh, which does not wear well. Today's drivers usually prefer the conventional cone synchro of the later G50, which also had the advantage of a hydraulic clutch rather than a cable. Most buyers ask for a G50 car, and Autofarm never retro-fits a 915. For absolute authenticity, a 2.7 210bhp engine can be fitted, but then the donor car needs to be a pre-1987 car, because although the 2.7 will fit an existing 915 gearbox, it cannot sensibly be coupled up to the later G50 and the complications of its hydraulic clutch. All but the most perfectionist conversions use later engines: the RS's 2.7 is closely related to the 3.0 SC and 3.2 designs, although the later engines use a heavier crankcase as mentioned (essentially the 3.3 Turbo's). In standard form, performance is very similar, and the 3.2 offers ten per cent more torque and horsepower, as well as mpg in the mid 20s against the 2.7's 18-20.



## 6. Body panels

The donor car is normally a 1974-89 911: the 3.2 is the usual base, as it is the most plentiful. The later 964 had a completely reworked chassis, which was heavier and used springs rather than torsion-bar suspension, factors that make it different enough from the earlier 911 to be less suitable as a basis for an RS replica.

To backdate an impact-bumper car's bodywork, Autofarm replaces the bonnet and wings with original Porsche parts. This includes the slam panel, slightly different on the G and later series and frequently neglected on lesser 'conversions'. The bonnet is aluminium, and the front bumper a glass fibre item made by Autofarm to a Porsche template. New indicators are original Porsche parts, and window seals and door frames receive the chromed inserts of the pre-1974 911. Similarly, headlamp bezels are chromed. The door handles again are original Porsche items. Normally, central locking would be deleted unless, as here, the customer wishes to retain it. Autofarm backdates the rear body with a glass fibre bumper and engine cover. It moulds the glass fibre ducktail to a Porsche template, and the black grill is usually sourced from a 1976 Carrera for closest originality.

The one item now impossible to find is the RS's lightweight glass for side and rear windows. Side rubbing strips (if a Touring spec) and the Carrera graphics are simple enough to apply. Autofarm will source the authentic chromed driver's side-only door mirror – one of the RS's distinguishing features.



## 7. Authentic parts

Autofarm says that spares and parts have generally better availability now than a decade ago, and believes that Porsche Classic is paying this area more attention. Items that used to be 'NLS' (no longer in stock) have reappeared. Quality can sometimes be inferior, and the company will opt for an original part if available rather than a remanufactured item in a Porsche box. Mikey Wastie has the impression, though, that Porsche has recognised these shortcomings, because some parts have been withdrawn again after three years, and the company

appears to be making more use of the vast resources of the VAG network to negotiate better supplier quality.

As ever, the level of replication really does come down to the size of the owner's wallet. Connoisseurs will even go as far as sourcing the original tool kit, for example, such can be the fastidious nature of the project. Regardless of your eye for detail, building a replica can be as fun as driving the car afterwards, though for best results it's advisable to turn to Josh Sadler's company that started the craze all those years ago. **911**





# GT3 BLOODLINE

Total 911 takes the inside line on the evolution of the GT3, the track-focused base that a Porsche Rennsport is built on

Written by **Kyle Fortune** Photography by **Chris Wallbank**



# Rennsport showdown

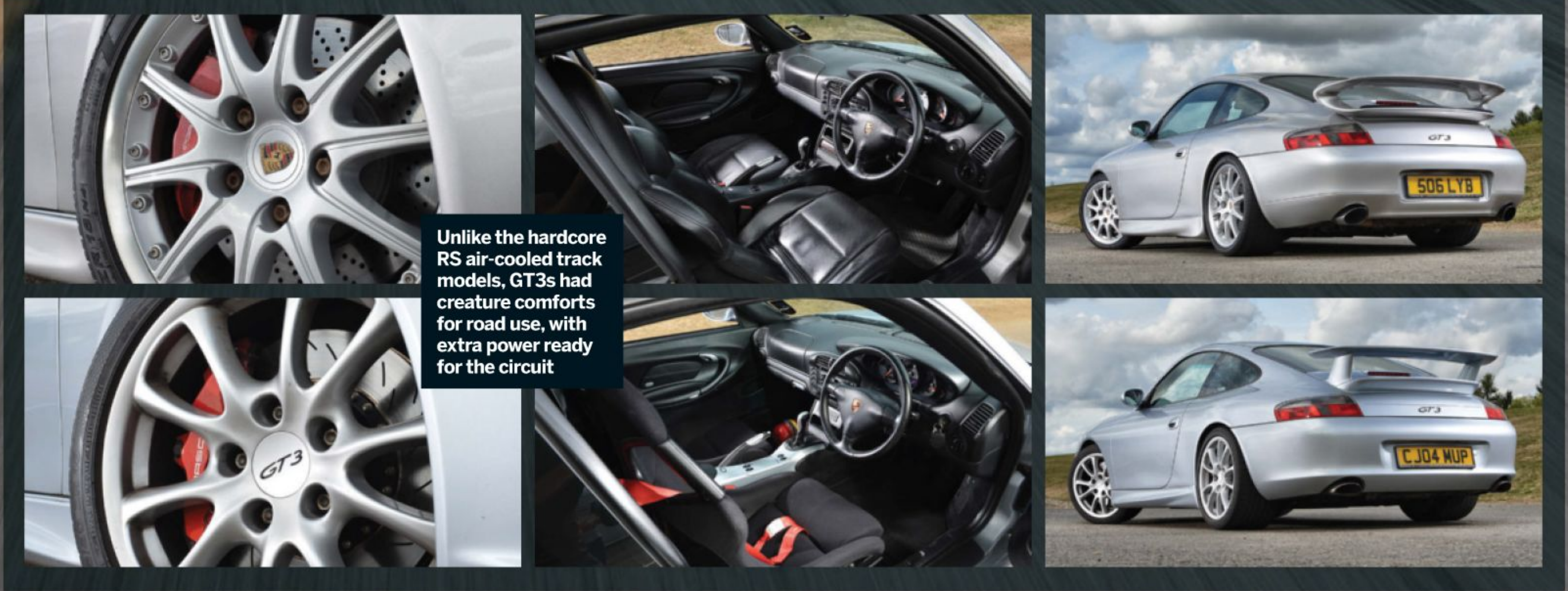
**A**s a demonstration of automotive Darwinian theory, there's no better image on these pages than the line-up of GT3 rumps. A sub-set genus removed from its ordinary Carrera relation, the GT3 evolved, as all the best Porsches do, in pursuit of success on the track. Not since the 993 RS had Porsche taken its Carrera and honed it to deliver so much more, adding a layer of involvement and intensity that the standard cars simply cannot

deliver. Different cars for differing purposes, the GT3 itself evolved into even more of a specialist sub-set: the GT3 RS.

Those homologation tearaways aren't here though; today is a celebration of the GT3 on its own – a car that in 1999 wowed with its ability, taking its engine from motorsport, yet not robbing its driver of the comforts that the RS models traditionally did. The 996 GT3 saw no weight reduction over the standard Carrera: despite the loss of its rear seats, it tipped the scales at around 30 kilograms more.

There was no thin glass, soundproofing, pull strap doors, alloy or carbon panels here; instead, the GT3 came with luxuries like air conditioning and electric windows.

The GT3's additional performance was derived not from weight loss, but from more power. A useful 60bhp was added to the 911's output, the 360bhp arriving from the GT3's 3.6-litre dry-sumped flat six at a heady 7,200rpm and peak torque of 273lb/ft at 5,000rpm. It's an engine that has become legendary, being able to trace its roots back to the 911's air-



Unlike the hardcore RS air-cooled track models, GT3s had creature comforts for road use, with extra power ready for the circuit



cooled ancestry and top-flight racing. The so-called Metzger engine shares little – if anything – with its regular 911 relations, save for where it's positioned. In the GT3, that engine allowed Porsche to quote a 0-62mph time of 4.8 seconds, 100mph arriving just 5.4 seconds later. Porsche also quoted a top speed of 187mph, but that was said to be a touch conservative.

Looking at the silver 996.1 co-owned by Peter Walmsley and John Moss, it's striking how pure and unadorned it looks. That was part of the appeal for the pair, who have a number of other

interesting Porsches to enjoy. "Looking for a GT3, it had to be an early one. Our car has high miles, but it was maintained fastidiously, a leak down and compression test revealing it to be within new parameters," says Walmsley. It can be used on road and track, although Walmsley admits that the lower suspension it rides on does somewhat compromise it for road use.

Despite its name being rooted in racing, the GT3 is still a road car. The first 996 exemplifies that, its suspension revisions being not so extreme as to

slow it down. As the first of its species, it is arguably the most delicate to drive. This is helped in no small part by its size: sitting inside the 996's cabin, it feels narrow, allowing it to be enjoyed better on the type of roads that escape traffic. The steering feel has always been a GT3 hallmark, and the first generation doesn't disappoint. It's been a few years since I drove one, and yet the rich information reaching the driver, providing real confidence with which to explore the GT3's limits, are still fastidiously fresh in the memory. ➔

“Despite its **name** being rooted in **racing**, the GT3 is still a road car”



“As sensational as the steering is, it is the engine that defines the GT3”



Walter Röhrl ensured that more power, greater precision and improved turn-in was the blueprint for the 996.2 GT3

As sensational as the steering is, it is the engine that defines the GT3. The 3.6-litre's motorsport DNA is obvious in its quest for revs, although it's underpinned by plentiful torque throughout the entire range. Thank the relative lack of mass it's moving; it might not have featured RS-like weight removal, but the GT3 still tipped the scales at a relatively lightweight 1,350 kilograms. Like the subtlety of its styling, the way the first GT3 goes about its business, riding with surprising composure and remarkable control despite its obvious focus, being easy yet utterly involving and enjoyable, is remarkable. I remember a conversation a year or so ago with Autofarm's Josh Sadler, where he described the 996 GT3 as criminally undervalued. He's not wrong, although the market has started to take note. Buy one while you can.

If the 996 GT3 of 1999 was a signal of intent, the

Gen2 car in 2003 took it to another level. Unique suspension carriers, revised and even more focused suspension, exclusive rear wishbones, GT3-specific brakes, wider rear wheels and some serious engine revisions make for an even headier mix. Some 3.5 kilograms were removed from the engine, the VarioCam variable valve timing system giving a better spread of power, and the loss of the crank damper and lighter con-rods, valves and pistons add up to even faster response and a higher rev limit. Peak power grew to 381bhp at 8,200rpm, and torque also increased to 284lb/ft, allowing for a 0-62mph time of 4.5 seconds and a 190mph top speed.

The external changes are subtle, Paul Cantoni's stunning light metallic blue Gen2 car demonstrating the changes. Coming with the 996's post-facelift headlights, the aero revisions are arguably better incorporated, particularly around

the rear. Even so, flat-topped wing aside, it would be easy to dismiss the Gen2 as one of its more common 911 relations, so meek are the changes, although you're left in no doubt that it's something special behind the wheel. Like its predecessor, it feels small. The cabin is fairly stark, with even the biggest 996 fans being unlikely to argue that its interior was a high point in Porsche design and material quality. Let's just say it's functional and inoffensive, and leave it at that. Visually, it might not be very different, but it feels like a far more potent proposition on the road. It is undoubtedly a more physical and demanding car to drive, thanks in no small part to the more focused suspension. Road imperfections and cambers that would be noticeable but shrugged off in the early car are more obvious here, the 996 Gen2 GT3 requiring more attention more of the time.

Add the greater power, which builds with more force than you'd believe given the relatively small on-paper changes, and the 2003 car represents a far more intense experience. Different to the point where some might enjoy the greater usability of the earlier car more, it's less likely to give you surprises on poorer surfaces.

The gearshift's feel is improved, the Gen2 feeling more like the homologation machine it represents. Porsche tasked Walter Röhrl with improving it, and he had clearly defined goals: more power, greater precision, an improved turn in and less unsprung mass. Porsche offered PCCB carbon ceramic brakes as an option to achieve that, the 350mm front discs with six-pot calipers giving the GT3 greater stopping potential on track. And, around *that* track, Walter managed to shave over seven seconds ➔



					
<b>Model Year</b>	<b>996.1 GT3</b> 1999-2002	<b>996.2 GT3</b> 2003-05	<b>997.1 GT3</b> 2006-08	<b>997.2 GT3</b> 2009-12	<b>991 GT3</b> 2013-
<b>Engine Capacity</b>	3,600cc	3,600cc	3,600cc	3,800cc	3,800cc
<b>Compression ratio</b>	11.7:1	11.7:1	12.0:1	12.2:1	12.9:1
<b>Maximum power</b>	360bhp @ 7,200rpm	381bhp @ 7,400rpm	415bhp @ 7,600rpm	435bhp @ 7,900rpm	468bhp @ 8,250rpm
<b>Maximum torque</b>	370Nm @ 5,000rpm	385Nm @ 5,000rpm	405Nm @ 5,500rpm	430Nm @ 3,250rpm	440Nm @ 6,250rpm
<b>Transmission</b>	Six-speed manual	Six-speed manual	Six-speed manual	Six-speed manual	Seven-speed PDK
<b>Suspension</b>					
<b>Front</b>	Lower wishbones and MacPherson struts with combined coil springs & dampers; antiroll bar	Lower wishbones and MacPherson struts with combined coil springs & dampers; antiroll bar	MacPherson struts; coil springs; antiroll bar	Lower wishbones and MacPherson struts with combined coil springs & dampers; antiroll bar	MacPherson strut; cylindrical coil springs with internal dampers; electric power steering
<b>Rear</b>	Multi-link with parallel wishbones, combined coil springs & dampers; antiroll bar	Multi-link with parallel wishbones, combined coil springs & dampers; antiroll bar	Multi-link; telescopic dampers; coil springs; antiroll bar	Multi-link with parallel wishbones; combined coil springs & dampers; antiroll bar	Multi-link; cylindrical coil springs with coaxial internal dampers; active rear-wheel steering; electronically controlled dampers
<b>Wheels &amp; tyres</b>					
<b>Front</b>	8x18-inch; 225/40/R18	8.5x18-inch; 235/40/R18	8.5x19-inch; 235/35/ZR19	8.5x19-inch; 235/35/ZR19	9x20-inch; 245/35/ZR20
<b>Rear</b>	10x18-inch; 285/30/R18	11x18-inch; 295/30/R18	12x19-inch; 305/30/ZR19	12x19-inch; 305/30/ZR19	12x20-inch; 305/30/ZR20
<b>Dimensions</b>					
<b>Length</b>	4,430mm	4,435mm	4,445mm	4,460mm	4,545mm
<b>Width</b>	1,765mm	1,770mm	1,808mm	1,808mm	1,852mm
<b>Weight</b>	1,350kg	1,380kg	1,395kg	1,395kg	1,430kg
<b>Performance</b>					
<b>0-62mph</b>	4.8 secs	4.5 secs	4.3 secs	4.1 secs	3.5 secs
<b>Top speed</b>	188mph	190mph	192mph	194mph	196mph





off the Gen1 car's time, which can be concluded as mission accomplished – just don't go trying to match it.

With the Gen2 GT3, the creep of technology was apparent, but it wasn't until the 997-based GT3 arrived in 2007 that Porsche would add PASM and Traction Control to its most focused of 911s. The purists might have decried it as sacrilegious, but those changes brought the best of its two predecessors and blended it into an incredible package. Revealed at the Geneva Motor Show in 2006, it went on sale in Europe in May, and August in the UK.

The engine, again a development of that exotic, high-revving flat six, remained at 3.6 litres, its peak revs rising to 8,400rpm – some 200rpm higher than previously. Output increased to 409bhp for a specific output of 114bhp per litre, this being the

highest output for a naturally aspirated production engine. Performance increased too, Porsche's figures saying the 0-62mph sprint took 4.3 seconds and 100mph arriving in 8.7 seconds, that latter figure showing the growing chasm in performance it offered over the 10.2 second Gen1 GT3. The top speed was quoted at 192mph – which, as is Porsche's norm, is likely to be a conservative estimate.

Looking more like a race-refugee than any of its predecessors, the 997 GT3 is unashamed in its purpose. From the deep front splitter with its five air intakes, the lower black portion adding a couple more to the mix, to the larger 19-inch alloy wheels and more purposeful rear wing, the GT3's intent is obvious, Roger James's car providing a good representation of how many Porsche fans might describe how a GT3 looks. Aerodynamics and cooling requirements more heavily influence

its look than ever, the trailing edge on the bonnet, bi-plane rear spoiler and ram-air effect inlets on the engine cover being far more obvious here.

Underneath all that, the technical specification has taken a leap, most apparently with the addition of PASM, the GT3 driver now able to choose between a stiffer sport setup for track work and a slightly less compromised road setting. It works too, the 997 GT3's suspension managing to ride with real finesse on even poorly surfaced roads, especially as the speed rises – as it so easily will.

The gearshift, with a revised, quicker and more accurate action, gains shorter ratios from second to sixth for improved response and acceleration, while Porsche fitted a shift light in the rev counter; just in case the screaming flare of the flat-six reaching maximum revs wasn't enough to remind you to select another ratio – not likely given the



The 997 era represented a technological leap forward for the GT3, now making use of PASM, plus better cooling and aerodynamics



The 991 GT3 represented a break from tradition, ditching the Metzger engine in favour of new DFI technology



The 991 is the first GT3 to utilise a C4 widebody, a custom usually saved for the GT3 RS

incredible note from the new, ten kilograms-lighter exhaust with bypass flaps acting on engine load and speed. Traction control, derived from that of the Carrera GT, also featured, Porsche understanding its audience and leaving its thresholds usefully high, even more so when you press Sport.

With wider front and rear tracks, the body that Porsche boasted was some eight per cent torsionally stiffer. The Pirelli Corsa or Michelin Cup tyres on 235/35ZR19 front and 305/30ZR19 rear wheels, and a limited-slip differential and weight under 1,400 kilograms enabled masses of grip, the usually mighty traction and the sort of braking power GT3 owners expect courtesy of 350mm brake discs with six-pot calipers up front and four-pot at the back. With the PCCB option, the front discs grew to 380mm, the curb weight lightened by 20 kilograms and your wallet by nearly £6,000.

That much-discussed traction control system was in Porsche's launch literature to "ensure traction particularly on wet surfaces," and anyone who has driven a GT3 on damp or fully wet roads is likely to testify to its usefulness. It incorporated three different electronic systems: Automatic Brake Differential (ABD), Automatic Slip Control (ASC) and Engine Drag Control (EDC), the latter preventing wheels locking up should you downshift too early.

The purists might have lambasted the addition of electronic intervention, but the reality on the road was nothing short of sensational. The 997 GT3 took the car to new levels, with the balance on offer and the confidence it gives you to push it to the very limits and beyond having to be experienced to be really believed. As far as drivers' cars go, the GT3 has always been representative

of the pinnacle, but what's remarkable is how far Porsche manages to push that from the earliest 996 model to this car just eight short years later. Both offer supreme driving experiences, but the gap between them in every area of their respective performance range is enormous.

That's not to belittle those that came before the 997 GT3. Indeed, such is the pace of development that only two years would pass before Porsche offered a new GT3 experience. The 997 GT3 Gen2 would do what its previous Gen2 models had done, taking the already incredible base car and further honing it. In 2009, that would see the GT3's engine finally grow in capacity, the familiar 3.6 litres of GT3s before it swelling to 3.8 litres, specifically 3,797cc. Output grew to 435bhp as a result, that arriving at 7,600rpm. Torque also increased to 317lb/ft at 6,250rpm, and the maximum engine speed again got higher, now being 8,500rpm.

The engine changes included the addition of VarioCam adjustment on the exhaust side as well as the intake, the freer-breathing engine seeing quicker response and even greater performance. 62mph arrived in 4.1 seconds, and 100mph in 8.2 seconds. The top speed was still quoted at under 200mph, with 194mph cited as the official number. Visually, the Gen2 997 GT3 differs little over its predecessor, the larger wing – with its 3.8 scripted endplates – sitting above a rear bumper featuring three additional cooling vents, the front splitter containing less intakes for a smoother and less fussy look. LED lighting was present too, with driving lights up front and within the rear lights.

Visually, John Westbrook's car might differ little, but the effect of the aero changes give the 997



Problems with con-rod bolts damaging the crankcase hampered the arrival of the 991 GT3, though most owners have now had their Porsche fitted with replacement engines



“The GT3 evolved, as all the best Porsches do, in pursuit of **SUCCESS** on the **track**”









GT3 Gen2 double the downforce of its predecessor. PSM allowed the switching off of both the Stability Control and Traction Control systems, while revised PASM allowed finer control, aided by the addition of centre-locking nut wheels, which reduced unsprung mass. Again, the option of PCCB brakes was offered to further improve that (and induce heart-stopping retardation), while the 997 GT3 Gen2 also added the possibility of specifying Porsche's Active Drivetrain Mounts. All that upped the thrills even further, the 997 GT3 Gen2 representing a fitting end to what some might consider the last of the truly driver-focused Porsche 911 GT3s.

I count myself as one of them, the 991's shift to PDK and away from its famous engine to one based on the standard Carrera's unit being something that I approached with trepidation. However, as reviewed by myself on these very pages from the launch last year, reservations that the GT3 in its 991 incarnation had lost something proved unfounded. Everything is right with the GT3, even if you're able to give your left hand and foot a rest.

Rob Turl, the owner of this 991 GT3, said: "Within 50 miles of driving the 991 GT3, I had to have it," adding that he promptly got rid of his 997 GT3 in the meantime. Admittedly, it's a different GT3 experience, but one that's true to the goals of the original. The engine might be different as more in line with a ramped-up Carrera unit, but the 3.8-litre unit remains naturally aspirated and delivers 475bhp at 9,000rpm. That's over 115bhp more than the original, its 7 minutes and 30 seconds Nürburgring lap time and 3.5-second 0-62mph sprint underlining the quick pace of development in the GT3 bloodline.

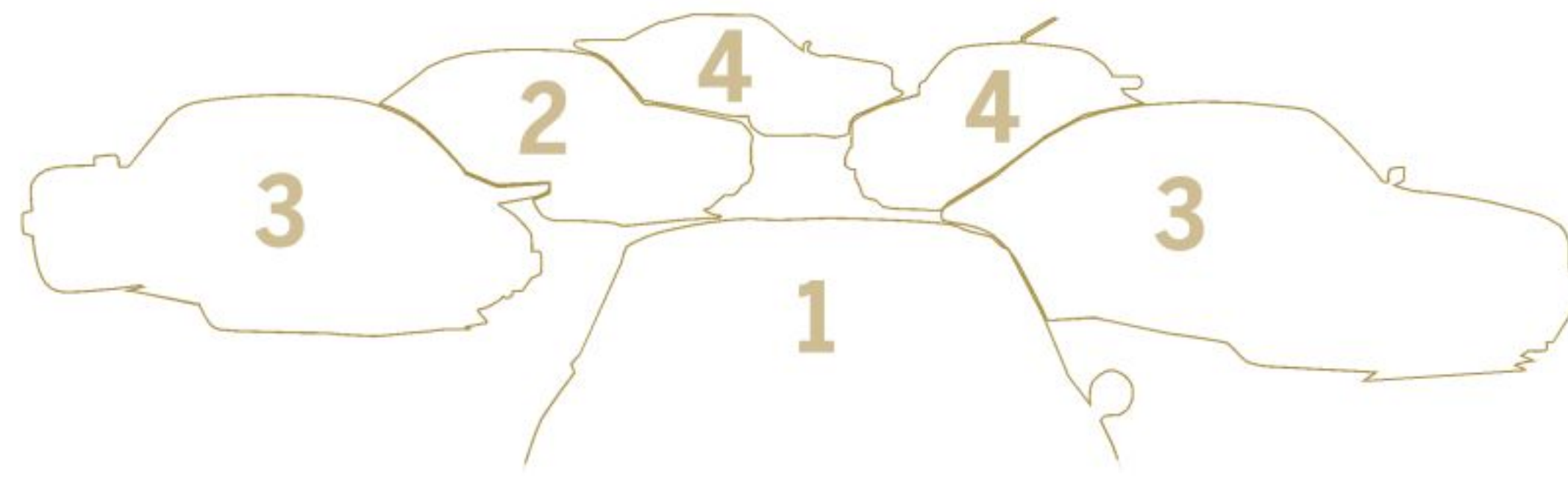
Just as detractors have cited greater technology as robbing previous GT3s of their appeal, only to be won over in reality, the PDK transmission, Porsche Torque Vectoring and electronic rear-wheel steer facilitates the GT3's quest to be a fast road car even further. Turl admits that this might be too fast, the GT3 having reached a point where there are few places it can be truly exploited on the road. This is arguably true of the 997s and 996s before it, but it's brutally punched home the first time you push the 991 GT3's organ accelerator pedal to the floor.

Evolution is a curious and beguiling thing, the GT3's rapid transition from pure, unassisted sports car to one adopting the very latest technologies being clear. What remains true is that every one of them, however different, define their eras perfectly, yet retaining a singularity of purpose that marks them out as greats. They will redefine your idea of performance driving, regardless of which you choose. Porsche's commitment to the small hardcore of drivers seeking out the very finest, most extreme, yet comparatively affordable 911 is really something to be truly thankful for. **911**

# An iconic COLLECTION

Belgian 911 enthusiast Frank Hendrickx has six über-rare sporting icons in his collection.





### 1 R SPEC

- Lightened shell, with stripped interior and glass fibre body panels
- Typ 901/22 engine and gearbox taken from 906 racer
- Only 22 ever made

### 2 S SPEC

- Typ 901/02 engine uprated by 30bhp over standard 911's
- Increased rev limiter to 10,000
- Decorated history as a Sixties weekend racer

### 3 RS SPEC

- 3.0-litre engine bored out from 2.7 RS
- 109 ever made: 55 RSs, 54 RSRs
- RSs kicked out 255bhp, more potent RSRs were pushed on to 300bhp

### 4 SC RS SPEC

- 3.0-litre engine with Kugelfischer mechanical injection
- Lightened and reinforced 930 shell, brakes from the Porsche 917
- Only 22 ever made

He was kind enough to grant Total 911 full access to them all at the Abbeville circuit, France

Written by **Kieron Fennelly**  
Photographed by **Laurens Parsons**

**Y**ou have to be a determined – not to mention well-heeled – 911 enthusiast to have the 911R, a brace of 3.0 RSs and two 911 SC RSs in your garage, especially when you consider that Porsche built a mere 22 of the original R and the much later SC RSs. However, Frank Hendrickx is no ordinary collector, having spent over a decade tracking down some of these cars. What matters to him is the absolute authenticity of his 911s that requires a commitment bordering on obsession, but the result is the pure delight of being able to appreciate and drive these rare period Porsches. Frank begins by explaining to us how he caught the 911 virus:

“Porsche is in my blood. My grandfather had a string of early Targas before he bought an RS 2.7 – the first Porsche I ever drove, incidentally – and then one of the first 3.0-litre Turbos... I bought a 911T to restore, but I ran out of money, and all my dad would say was ‘You can have a 911 when you can afford to run one.’”

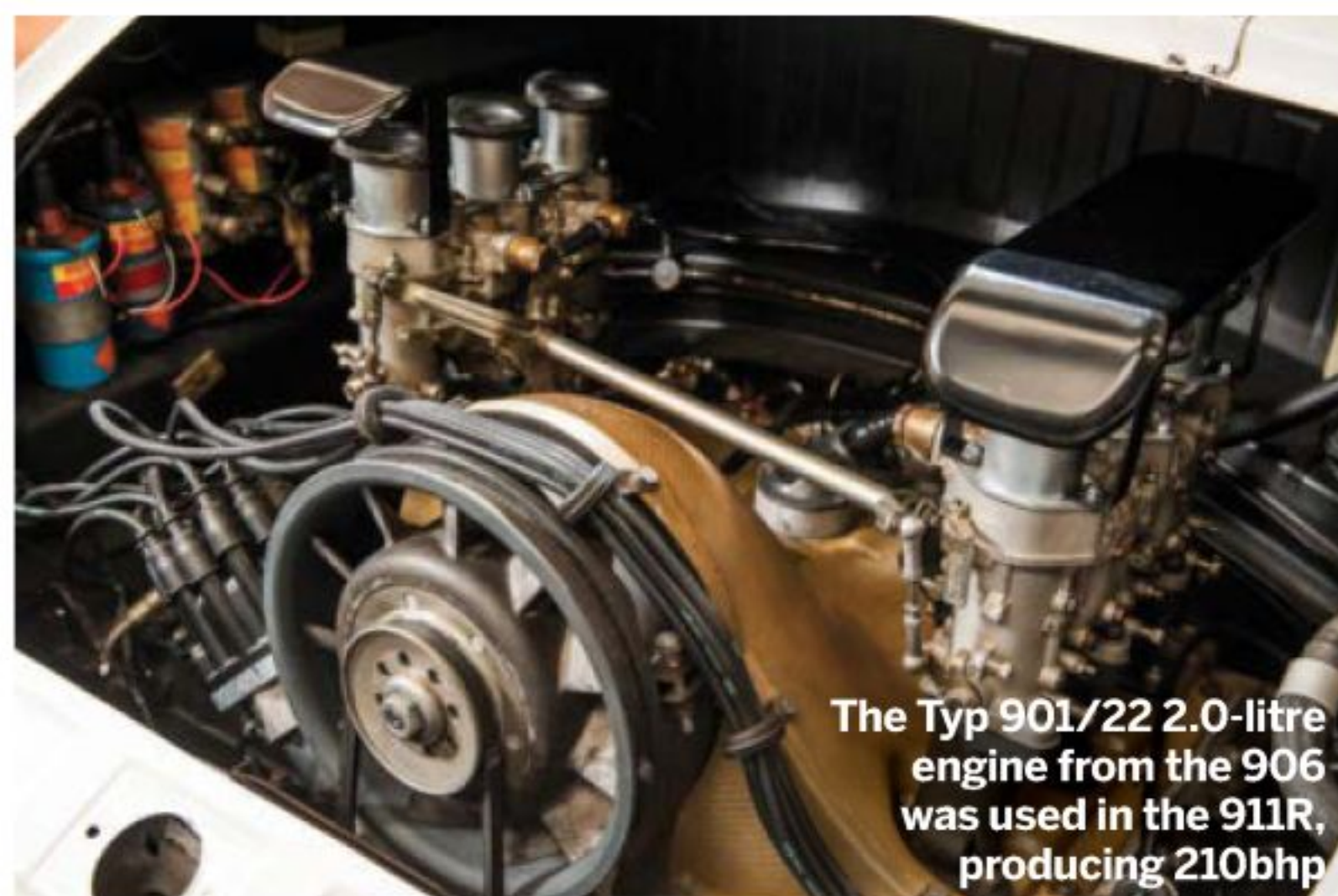
That time came a decade later in 1991, when Frank paid a deposit on the then-recently launched RS 964. He became a total recidivist, and today his collection includes, aside from the cars we’re about to introduce, other 911 exotica such as the Ruf CTR and the C4 Leichtbau. But first, the sporting icons... ➔

## 911 R

The earliest 'special' 911 in the collection is the 911 R, a car that was a casebook study in removing weight. The 160bhp S was already proving successful in competition, but technical director Ferdinand Piëch realised that a ground-up racer was required to win at the highest level, so he had the 911 significantly lightened.

The 'R', for Rennen (racing), was assembled by coach-builder Karl Bauer, who fitted doors, bonnets and engine covers, as well as bumpers in glass fibre. The windscreen used 4mm-thick glass (instead of 6mm) and perspex replaced the other windows. Aluminium hinges and simplified catches were employed throughout, and steel bulkheads everywhere were drilled to eliminate vital ounces. The interior was stripped, the dash cut back to three instruments and Scheel bucket seats replaced the standard items. The standard suspension was lowered, and the 210bhp engine and gearbox of the 906 racer fitted.

Weighing not much over 800kg, the R proved to be fast and reliable, and achieved a series of international speed records, but it never got beyond the prototype stage, as the Porsche board refused to sanction production of the necessary 500 units to qualify the R for production car racing – which was Piëch's aim. So only 22 of this, the lightest 911 ever made, were built. With no racing category available to them, it took Porsche a couple of years to find customers for the Rs.



The Typ 901/22 2.0-litre engine from the 906 was used in the 911R, producing 210bhp



Despite breaking a number of speed records, the R was never mass-produced

“

DOCUMENTS SHOW THAT THIS IS THE SECOND R BUILT, AND THAT IT WAS USED AS THE BACK-UP CAR AT THE INTERNATIONAL SPEED RECORD ATTEMPTS AT MONZA IN MAY 1967

”

## ESSENTIALS: 911 R

Bought by Hendrickx in California, this R spec was used at an international record attempt at Monza in 1967 and for a while in Eritrea, Africa.



Weight-saving measures on the 911R included drilling holes in the bulkhead and cutting back the dashboard



What a contrast 40 years on, when these Porsches sell for well into six figures. Hendrickx tracked his car down in California, where documents showed that this was the second R built, and that it was used as the back-up car at the international speed record attempts at Monza in May 1967 before becoming a works racer, being sold when the 911 model went to 2.2 litres. The buyer was an Italian, Dr Daolio, who took the R to Asmara in Eritrea, where he worked, and the 911 R competed extensively in local rallies and street races before going to a Japanese collector when the doctor returned to Italy in 1980. The R saw almost no use for the next 30 years – when Frank acquired it, the clocks showed only 32,000km.

On Abbeville's smooth tarmac, the R is a delight to drive. The steering is light and very direct, the gear change with its dog leg first requires no effort, and on winter tyres this racing 911 drifts beautifully through tight corners. The engine is amazingly responsive: Frank has weighed the car at 820kg – exactly its ex-factory weight – and the engine delivers 216bhp according to the dynamometer,

a power to weight ratio unmatched by naturally aspirated production 911s until the first GT3.

## 911 S

Frank's latest acquisition – and only 'mass-produced' 911 of the group – is his 911 S, chosen because, again, it is an absolutely authentic example of the first sporty 911. He knew from the documents and photographs that accompanied his 911 R that Dr Daolio had also bought a 911 S before he obtained the R, and Frank was eager to add this 911 to his collection. That the doctor was a keen Porsche competitor is clear – he and his associates later raced a 906 in North Africa. This year-old S was purchased in 1968 from a dealer in Düsseldorf and sent to Porsche, where it was uprated for competition with the fitting of the 10,000rpm rev counter, an extra oil cooler and secondary oil tank, as well as glass fibre bumpers, doors and bonnet. When Hendrickx obtained the car, the oil tank and cooler had been removed, but the hole for the filler cap remained, and he was able to fit the correct period

## ESSENTIALS: 911 S

This S has largely followed the R for most of its life, owned by the same doctor, who raced in Eritrea before Hendrickx reunited them both.



Frank's 911 S has certainly seen the world, having spent a number of years as a racer in Africa, sporting home comforts of a leather steering wheel and basket-woven seat fabric

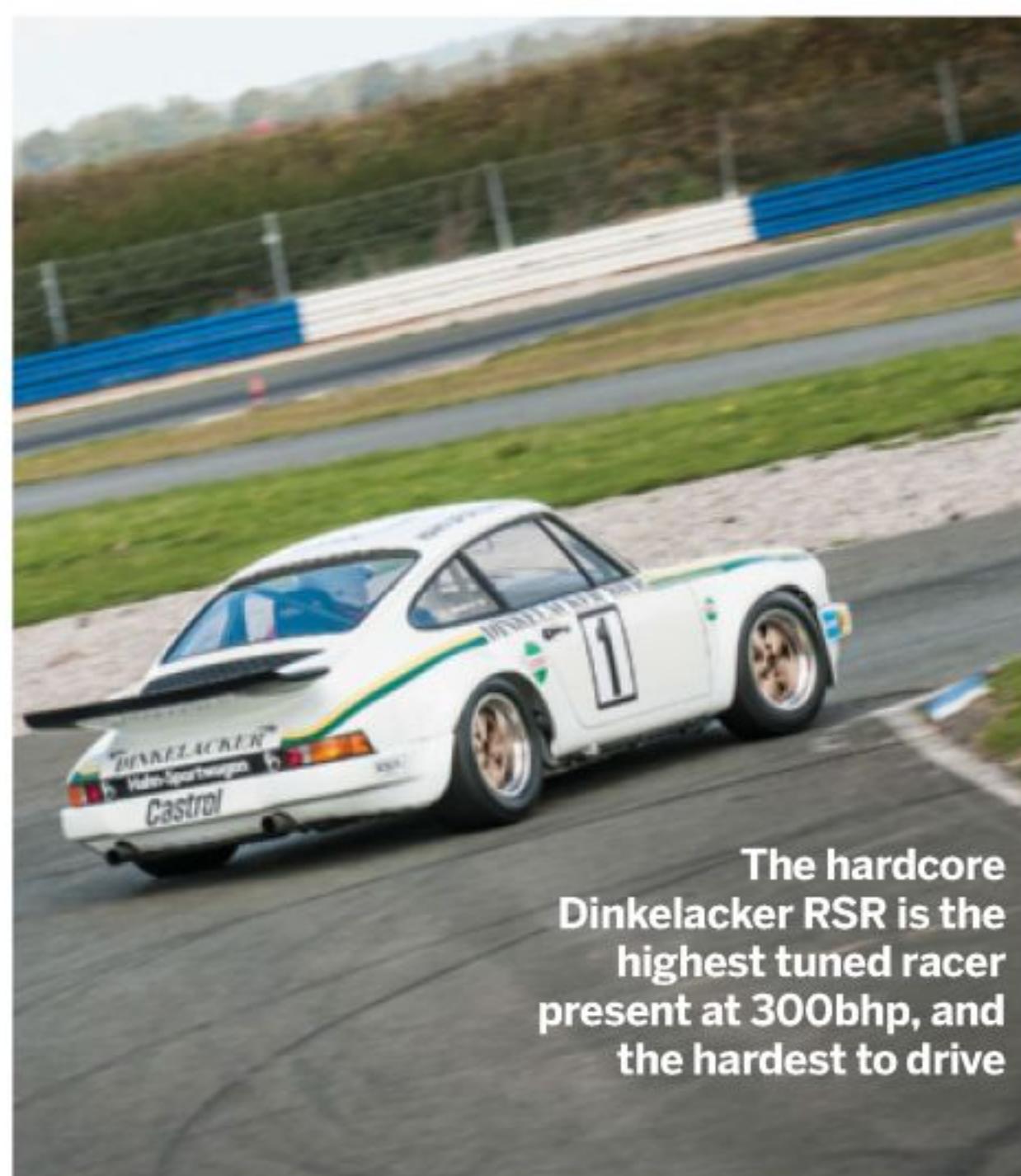
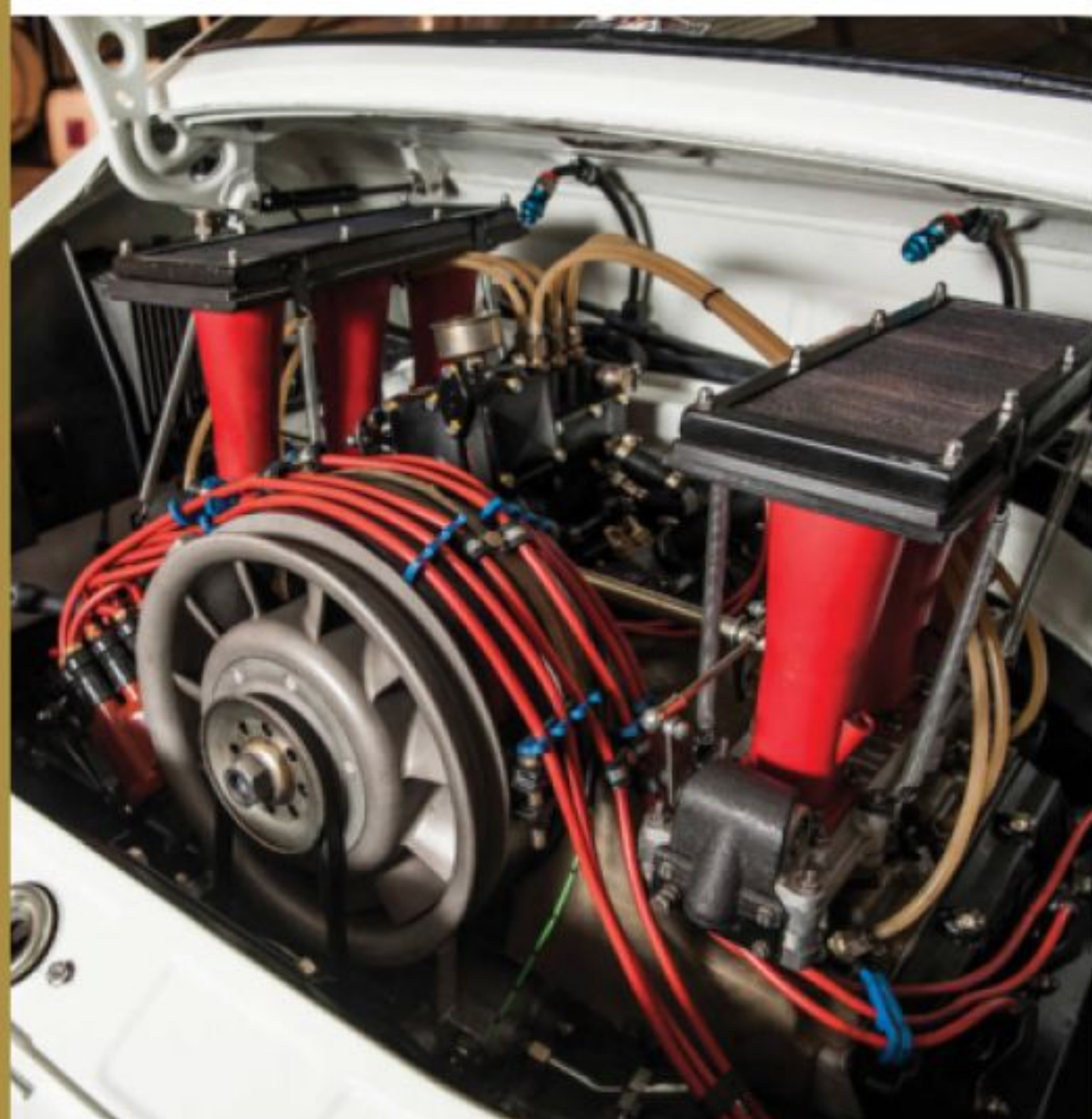


The hole for the filler cap remained





Sporting the same decals it raced with in the 1977 season, there was only room for one person in the Dinkelacker RSR, as shown below



The hardcore Dinkelacker RSR is the highest tuned racer present at 300bhp, and the hardest to drive



oil reservoir. Otherwise, it was outstandingly original in its red and white paint scheme, complete with stickers remaining from its African racing career.

On the track, the S behaves like the R; lithe and responsive, though it packs 50 fewer horsepower. The 2.0-litre flat six has no flywheel effect – the revs fall away, and the trick is to keep the engine ‘on the cam’ on corners. The 911 S was always described as an expert’s car at the limit – breakaway is swift when the accelerator

is released, and the consequent oversteer is fun on Abbeville’s slow corners – but on the road, especially wet surfaces, the driver has to be very wary indeed.

## 911 RS

The 1974 3.0-litre RS is a world away from these dainty Sixties 911s, distinguishable by its flared wheel arches, which cover much wider rubber and its (glass fibre) G series front and rear bumpers. A development of the 2.7RS, Porsche

bored the engine out to 3.0 litres, which delivered a further 20bhp and essentially more torque. Combined with the chassis’ wider stance and improved aerodynamics, this gave Porsche a highly competitive entrant in Group 3 production GT series. Porsche circumvented the rules and managed to have the 3.0 RS homologated with a run of 109 cars rather than the normal 500. Frank has two 3.0 RSs in his collection, one of which is the Dinkelacker-sponsored 911, which has been kept as it was when raced in the 1977 season. It





The 1974 3.0-litre RS is treated to a full roll cage

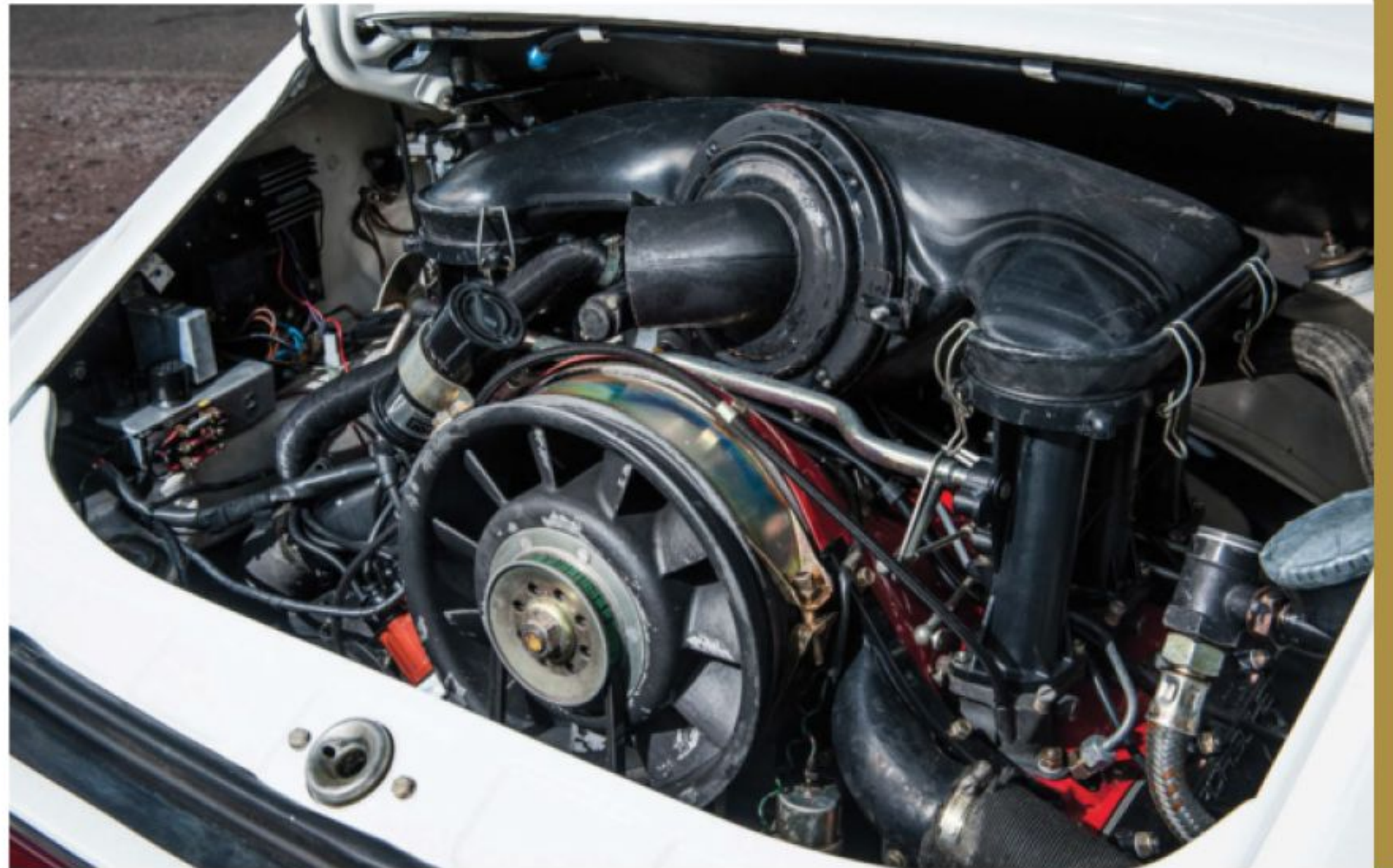


## ESSENTIALS: 911 RS

Not happy with his Dinkelacker RS sharing a chassis number with another RSR on Porsche's books, Hendrickx recently purchased the RS.



The RS is easier to drive than its 'highly stressed' RSR sister



“

THE 3.0-LITRE HAS MORE TORQUE, MORE SOLID POWER DELIVERY AND IT WAS BUILT AS A BASIS FOR RACING

”





The Bastos liveried SCRS is the genuine article, having raced in local competitions in the Eighties



## ESSENTIALS: 911 SC RS

With a decorated racing history, Hendrickx had the Bastos SC RS researched by Jurgen Barth for its validity, while the white SC RS came about as an impulse buy when looking at military vehicles.







The impulse buy white SC RS is as rigid to drive as the Bastos racer





“

I WAS SO TAKEN WITH IT THAT I OFFERED TO BUY IT ON THE SPOT. IT WAS ONLY LATER THAT I REALISED I HADN'T ASKED HOW MUCH THEY WANTED!

”

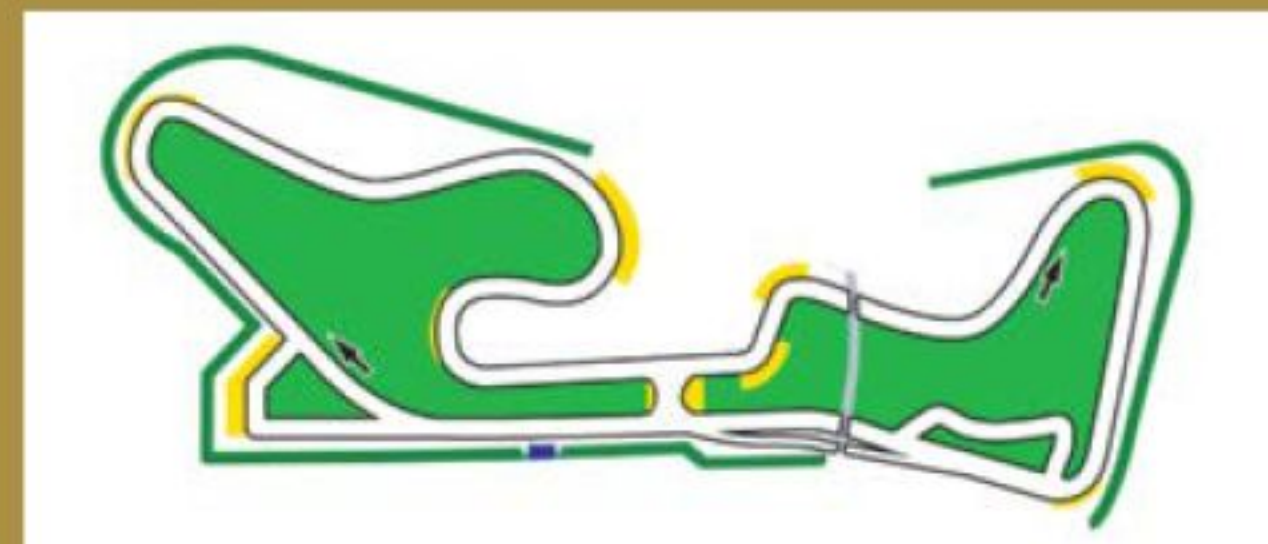
packs a 300hp RSR engine, but Frank is unhappy that Porsche records show two 911s with the same chassis number, one of which is this Dinkelacker racer. He intends to one day to resolve this puzzle, but such uncertainty does not suit a man obsessed with originality, so in the interim he has purchased a second 3.0 RS (as you do), this being one of the 55 230bhp RS models (the other 54 were the RSR 'racing' version, with an unimpeachable history). This 911 is much nicer to drive than its highly stressed sister, with lighter steering and clutch control combined with a more tolerant gearshift, making this an easier car to conduct around Abbeville. A recent acquisition, Frank is even tempted to register it for road use. He rates the 3.0 RS above the much-prized 2.7 RS which, of course, he also has in his collection: "The 3.0-litre has more torque, a more solid power delivery and it was built

as a basis for racing. With only 109 of them, they are bound to continue going up in value," he says.

### 911 SC RS

The SC RS was almost an unknown variety, and Porsche enthusiasts have Hendrickx to thank for pulling what is effectively the last works-prepared 911 racer out of obscurity (excluding, of course, the later Cup cars, which were made in much greater numbers). In 2009, and after much preparation, Frank organised a memorable 25th anniversary gathering of this model, where he managed to bring together no fewer than nine of the original 22 SC RSs, plus some replicas, which were astounding in their historical accuracy.

As ever, the justification of the SC RS was competition: by the Eighties, the venerable 3.0 RS was falling behind. However, with backdoor



### CIRCUIT D'ABBEVILLE

An hour south of Calais, Abbeville is at exit 23 off the A16. The site dates back to the mid-Nineties, when a loose surface track was established for rallycross on a parcel of land on the edge of the old aerodrome. In 2002, the circuit was given a proper tarmac surface. The circuit is a commercial venture designed to attract business to an area where traditional industries have closed down. Abbeville is a tight, technical track, and has all the usual motorsport activities: trackdays, driving schools, test sessions – everything except competition. The 2.4km course particularly suits lower powered, lighter cars like the Porsche 944s. In this respect it's a good circuit for beginners – the main straight (the only place where the 911 gets above third gear) isn't long enough to lose concentration or exceed 110mph, while the run-offs are mostly generous and the bends varied, if flat. The only drawback is when heavy rain washes soil onto the track, negating some corners and making the track dirty. Contact: Stadium automobile Abbeville, tel: +333 22 20 08 65.



help from Porsche, privately entered 3.0s still won the 1978 Monte Carlo and 1980 Tour de Corse rallies. In 1981, Porsche's newly arrived Managing Director, Peter Schutz, persuaded the company to reinvest in its racing tradition and build a car – Project 959 – for the new, high-profile Group B, where Audi were reaping so much publicity for its Quattro. This would take time, though, and Jürgen Barth, Porsche's Racing Manager, saw an opportunity to build a lightweight 911 in the interim. There were also several potential customers, starting with the Rothmans team, which needed a replacement for its rally Opel Mantas, and would ultimately take five SC RSs.

With assistance from Roland Kussmaul, whose wizardry would later produce the Cup 964 RS, 993 RSs and GT3, a 930 turbo body was judiciously

lightened and reinforced. Fitted with 917 brakes, the compression ratio of the 3.0-litre flat six raised to 10.3:1 with specially forged (instead of cast) pistons, higher lift cams and Bosch Kugelfischer injection, the SC-RS produced 285bhp at 7,000rpm. Depending on precise specification, the stripped-out SC turned the scales at around 1,050kg. A road version was also available, detuned to 250bhp.

20 years after a standard 911 driven by Peter Falk and Herbert Linge took fifth position in the Monte Carlo Rally, which 911s would go on to win four times, the SC RS ended the 911's rally career in a blaze of glory: only an injury that entailed missing the last two rounds prevented the inspired Finn, Henri Toivonen, from winning the 1984 European championship. Podiums were rarer occurrences in the next two years, as more of the

competition turned to the massive power of turbocharging. Nevertheless, the Rothmans 911s won the Middle East rally championships in three successive years, and the Belgian cigarette-sponsored Bastos and Belga 911s won local championships, as did Billy Coleman, who took the 1985 Irish Rally title (see **Total 911** Issue 92) in a Rothmans 911SC RS.

Hendrickx recounts how back in 1994 he had never heard of an SC RS. He had been invited to look at a mixed collection of mostly military vehicles, which also happened to include some 911s. It was there that he saw the white SC RS in our pictures. "I was so taken with it that I offered to buy it on the spot. It was only later that I realised I hadn't asked how much they wanted!" Frank says. He did end up spending rather less than the €60,000 he had recently paid for an RS 2.7, though. Frank later acquired

Robert Droogmans' ex-Bastos car: "I did a lot of research with Jürgen Barth and elsewhere to make sure this really was the Bastos SC RS it purports to be. There are just so many fakes.

The reason you find so few genuine 2.4 Coupes is so many of them have been turned into RS 2.7 replicas." A seasoned collector, Frank knows that in the world of classic Porsches, never has the phrase *caveat emptor* ('Let the buyer beware') been more important. A measure of Hendrickx's determination to recreate his 911s in exact period detail is the correct dyno stick-on labelling of the dashboard controls. He also obtained the Motorola two-way radio used in the Eighties – even going to the trouble of making it work!

Ten years on from the 3.0 RS, the SC RS is a very different car: "It's more homogeneous," says Frank. "You feel all that work in the chassis. The shell is more rigid, and the inner front wheel doesn't lift.

It steers better, and you've got to be going faster to get the tail to come out." Despite a 285bhp engine and the need to keep the revs high, this 911 is remarkably un-temperamental for an unabashed race car.

Porsche continues to amaze us with the 911, now as the 991 generation of course, but evolution means that, of necessity, it has left its roots far behind. We must be grateful to collectors like Hendrickx, who is also an assiduous Porsche historian, that these raw and unbridled 911 racers have not been lost to thoughtless customisation, and are still available for other enthusiasts to appreciate. Frank ships his 911s on a racing car transporter, smartly painted with his '911 Motorsport' flash. Beneath this, the legend reads 'Keeping tradition on the right track.' We couldn't put it better ourselves. **911**



“The 3.0-litre is a  
truly inspiring  
old  
racer”

# Modified & motorsport

The very best Rennsport racers from all over the world

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We reveal the incredible story of the 911 ready to race again after a 30-year hiatus

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Up close and personal with the CanAm-inspired 911 that nearly conquered Le Mans

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The 2.7RS wasn't allowed in the States upon its release, but this was a worthwhile backup for those specially chosen few

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The 964 RS is already a raw driving experience, but how does it fare with a 3.8-litre 993 RS engine in the rear?

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Our big test of the 4.1-litre 997 GT3 RS in its finalised build specification

## 152 Wallys Jeans RSR

Customer Motorsport is ingrained into Weissach, as this 3.0-litre RSR demonstrates



# 911 3.0 RSR

# THE BORN RACER

After three decades in storage, this pedigree 911 racer is ready for competitive action on the track once again

Written by **Kieron Fennelly** Photography by **Daniel Pullen**

**T**he Carrera 3.0 RS succeeded the 2.7 RS for the 1974 model year. Although it was a new model based on the G-Series impact-bumper 911, Porsche somehow managed to circumvent the homologation minimum of 500 cars, producing only 109: the FIA was apparently persuaded that the 3.0 was an evolution of the 2.7 RS. At the time, this sleight of hand seemed very clever on Porsche's part. Although (and to Porsche's great surprise) the 2.7 RS had been a sell-out – three times the homologation minimum quickly found takers before F-series production ceased – there was no guarantee that 500 of the 3.0 RS would prove to be as popular in the wake of the first oil crisis and the Sunday closure of the Autobahn network. Today, though, it is rather a matter of regret: the 3.0 did not offer any more performance than the 2.7, but its greater capacity endowed it with more torque, making it easier to drive in traffic, and it handled better on its wider tyres.

The RS 3.0 was, of course, the basis for the competition version. The RS 3.0 was priced at 64,980 Deutschmarks, and of the 109 constructed, Porsche made 54 to full-race RSR specification, for which it charged a further 30,000 DM. As a competition specialist, Porsche estimated that there were enough well-heeled gentlemen racers who would not flinch at spending 100,000 DM on what they knew was certainly the most reliable and best developed off-the-shelf GT racer. Indeed, Paul Frère

said that the RSR was exceptional value for money compared with alternative GT machinery, the most reliable and fastest (in a straight line) of which was the V12 4.4-litre Ferrari GTB/4, which would have cost at least twice as much.

There were no works cars: all 54 3.0-litre RSRs went to private teams, and in the face of redoubtable opposition in the US from 8.0-litre Camaros and in Europe from works 450bhp BMWs, the 911 RSR won 19 GT races in 1974-75, including the IMSA (US) and European GT championships. In 1976, the 911 Turbo era began, and the 934, shortly followed by the 935 'silhouette' models, took over and the naturally aspirated RSRs were displaced from top-level competition. What subsequently became of most of them is often obscured in the mists of time. The RSR 3.0 was bought for racing, and most led a hard life, frequently upgraded to 934 or 935 specification if not simply partially rebodied or otherwise modified after accidents. Today, 40 years later, it is likely that the majority of these cars have been restored to something approaching their original 3.0 RSR specification.

One such 911 is the so-called 'Mila Schön' car, which is looked after for its owner by Essex-based specialist Lee Maxted-Page. After more than a decade of working with historic Porsches, Lee is well acquainted with what at this level is an international market.

"With these tiny production-run cars, history is more important than condition. What makes the



# Modified & Motorsport

Schön 911 so exceptional is that it not only has an exemplary history, but is also remarkably original.”

Chassis 911 4609074 is a remarkable car by any yardstick: the 3.0 RSR was ordered new by Porsche dealer Max Moritz of Reutlingen, and delivered in March 1974 to 28-year-old Giorgio Schön, the motor-racing son of Italian fashion designer Mila Schön. A month later, Giorgio Schön was already competing at Monza in his new 911, and as the panel opposite illustrates, this RSR had a full – if relatively brief – competition career.

Though manifestly a 911, the 3.0 RSR looked very different from the production G-Series. Externally, the most obvious change was its wider wings, almost theatrically so at the rear, which housed the enormous racing tyres, nine-inch tread width at the front and a dramatic 14 inches at the rear. In other departments, notably front and rear body mouldings, its glass fibre items were clearly not the stock G-Series impact bumpers, and the RSR also sat rather closer to the ground. Underneath, its suspension was stiffened and reinforced; strengthening plates were welded at the top of the front struts, Delrin rather than rubber bushing was employed, and at the rear auxiliary steel coil springs were fitted. For an additional 4,000 DM, RSR buyers could even specify lighter titanium springs. The competition look was completed

by centre-lock magnesium wheels together with finned aluminium-brake calipers, which came from the all-conquering but now defunct 917.

The RSR's simple interior was effectively that of the previous lightweight 2.7 RS, and turned into a racing cockpit by deletion of the passenger seat (and installation of a fixed Recaro racing seat), application of black felt to exposed floor and roof lining and the fitting of rear roll cage and Heinzmann fire extinguisher. The clock was removed and an electronic 10,000rpm rev counter replaced the stock item and a specific, smaller-diameter steering wheel was fitted. Under the (plastic) bonnet, a 110-litre fuel tank, also in a plastic material, was also fitted.

To achieve output of 330bhp from the 3.0-litre flat six, the compression ratio went up to 10.3:1, the ports were polished and the cylinder head drilled to provide twin-plug ignition. Aspiration was accomplished by throttle sliders or butterflies depending on type of competition usage. A cold start lever on the inlet manifold needed to be held down while the car was fired unless hot, making starting a two-man job, but Porsche reasonably assumed that their gentlemen racers would normally be accompanied by mechanics anyway!

Delivered to Giorgio Schön in Porsche's lime green, as a good Italian son, Signor Schön would

show his gratitude by allowing his artistic mother a free hand in designing the livery, which has become very much part of this RSR's character. Indeed, the RSR was seemingly turned out in this colour scheme only a couple of days before its first outing, appropriately at Monza. Schön raced the RSR, which was prepared and entered by Tam Auto Tuning in all the major European endurance and European GT championship events – the 24 Hours of Le Mans was the only major sports car race he did not tackle.

After only three outings in the 1976 season, he sold the car to Patrick Pierron, a Parisian resident of Monaco who drove the RSR in that year's Rally du Var. Pierron discovered that the wide-bodied RSR was less at home on twisting rally courses, and as he wanted to tackle the Tour de Corse, he returned the RSR to Porsche to be converted to Group 4 rally specification. Essentially, this involved reducing those extravagant wings to 3.0 RS dimensions and the fitting of normal five-stud wheels and narrower tyres. Under the engine cover, Porsche replaced the throttle slides, which are either open or closed, with butterflies that modulate the throttle better at the expense of some horsepower.

The comprehensive history files with this 911, which Lee Maxted-Page has carefully re-bound, show a sequence of detailed invoices dated

## Returning the RSR to competition

With the resurgence of historic racing since the Nineties, there is much more chance of a 911 with this pedigree returning to the track. Lee suggests that suitable outlets for RSRs are Patrick Peter's CER 1 and plateau six at Le Mans Classic. For the RSR to be compliant with FIA rules for current competition, he advises that it would need the following updates:

1. Fit an FIA-compliant safety cage. The original roll hoop, as it was called, was obviously much less effective and also offers none of the chassis stiffening of a contemporary cage. An FIA-approved fire extinguisher will also be required.
2. Fit a modern racing seat with accompanying harness. The original items can be preserved and refitted for display outings.
3. It would be unwise to use the light magnesium wheels for racing today. Though uncracked, they are valuable and not worth risking on safety grounds. Again, they are best kept for non-competitive use.
4. The wheel hubs would need to be rebuilt for racing, and a full suspension and setup carried out among numerous other checks.





## Competition record of the Mila Schön RSR

Ordered new by Max Moritz Porsche, Reutlingen, and supplied to Giorgio Schön in March 1974.

**First competitive appearance:** Monza 1,000km, 25 April; finished **18th** overall. Seven more appearances during **1974**:

- **6th** 1,000km Imola

- **DNF** Nürburgring 1,000km

- **18th** Zeltweg 1,000km

- **12th** Le Castellet 1,000km

- **DNF** Six Hours of Monza (co-driver Arturo Merzario, Ferrari works driver!)

- **DNF** Brands Hatch 1000km

- **DNF** Giro d'Italia

**1975:** Three races entered: Mugello 1,000km, Monza 1,000km and Six Hours of Monza. No finishes recorded.

**1976:** Three races entered: Mugello Rond Rallye, Mugello 1,000km and Six Hours of Vallelunga. No finishes.

**1976:** Rallye du Var (French rally championship – car now owned by Patrick Pierron)

**1977:** Tour de Corse (Patrick Pierron) RSR now wearing narrower wings/tyres. No results given for these two events.

“This RSR had a full  
– if relatively brief –  
competition  
career

Model Year	3.0-litre RSR 1974-75
<b>Engine Capacity</b>	2,994cc
<b>Compression ratio</b>	10.5:1
<b>Maximum power</b>	330bhp @ 8,000rpm
<b>Maximum torque</b>	223lb ft @ 6,500rpm
<b>Racing modifications</b>	Twin ignition with two plugs per cylinder; triple-throttle valve housing and belt-driven twin-row Bosch injection pump; no air filter; polished ports; four bearing camshaft and timing from Carrera Six; front-mounted oil cooler; 16-litre oil capacity; five-speed 915 manual transmission with wing-mounted gearbox oil cooler and special lubrication; ratios according to circuit; Fichtel & Sachs racing clutch; limited-slip differential with 80 per cent locking factor; braking system based on 917 with finned calipers and ventilated discs; glass fibre rear wings, bumpers and boot and engine covers; windows: lightweight glass
<b>Suspension Front</b>	Strut/damper unit and torsion bar
<b>Rear</b>	Torsion bar and semi trailing arms
<b>Wheels &amp; tyres Front</b>	9x15-inch magnesium Fuchs; 23/62/R15 tyres
<b>Rear</b>	14x15-inch magnesium Fuchs; 29/61/R15 tyres
<b>Dimensions Length</b>	4,491mm
<b>Width</b>	1,795mm
<b>Weight</b>	1,020 -1,060kg (according to race equipment carried)
<b>Performance 0-62mph</b>	Not recorded
<b>Top speed</b>	Not recorded





The whaletail suggests a Turbo, but the RSR was in fact the last of the naturally aspirated 911 racers

1976-77 and correspondence between M Pierron and Porsche, where he specifies the lower gear ratios he wants fitted. But then, M Pierron did little more with the car, and for almost 30 years it apparently resided in his car collection.

In 2004, he decided to rehabilitate his RSR: Lee Maxted-Page believes he had realised what an appreciating asset it was. Pierron consigned the car to classic Porsche specialist Garage Bourgoin in Poitiers for what was to turn into a bare-shell restoration. Bourgoin returned the RSR to its original Group 5 state, and with the rebuild completed, Patrick Pierron finally took the RSR

home in 2009. After a period of indecision, he was persuaded to offer it for sale.

This is how in late 2013, chassis number 911 4609074 came to arrive at Maxted-Page Ltd, but not before Lee Maxted-Page had done thorough research on behalf of the would-be owner into its history, and Andy Prill had examined it thoroughly. It is incredible to see the details that the company looks for to establish authenticity.

“The chassis and production numbers are correct, and the 911/75 engine and 915 gearbox are both period and correct; the appearance of the various strengthening welds around the chassis

and the tops of the struts corresponds with homologation photography. It is theoretically possible to copy these welds, but I’ve never seen it done in the same way as the factory welds. Look at the windscreen: I’m sure it’s original because it’s mildly abraded up to an inch below the sun-visor strip, where it is unmarked because that part was covered by the original sun visor, only removed when Bourgoin restored the car. Also, the rest of the glass is the original thin Glaverbel stuff you just can’t get today. The half-roll cage is most likely original, and the driver’s seat is the correct Recaro. Also, the RSR’s handbrake mechanism is still present, as is the original engine lid – parts that are very hard to find now.”

These history files contain letters from Jürgen Barth, the first from 1977 to Patrick Pierron detailing how the factory had adjusted the brake balance as part of the rally spec conversion; a second, an expertise (recognised expert assessment) dated June 2013 for the potential new owner provides proof of the car’s long residence in Monaco or France together with evidence of a factory engine repair in 1978. Barth concludes that, “The car makes a very good



“It is **incredible**  
to see the details that the  
**company** looks for to  
**establish**  
**authenticity**”

**3.0-litre RSR  
in numbers**

**Quantity built:** 54

**Dates:** 1974-75

**Championships competed in:**  
US IMSA (1974-75), European GT  
Championship (1974, 1975), FIA GT Cup  
(1974-75), ten national championships  
(1974), nine international wins (1974),  
nine international wins (1975 including  
Daytona 24 hours), International Race of  
Champions series (1974)

**Most capped driver:** John Fitzpatrick –  
five wins 1974, three wins 1975

impression and corresponds in every detail with the original factory condition.”

Lee Maxted-Page is understandably enthusiastic about his charge: “The RSR is a great 911. It’s better balanced than the F-series and earlier 911s, and wonderful to race. Drivers much preferred it to the more powerful 934 and 935s, which were heavier and brutes to handle because of the sudden kick of the turbo. The RSRs were popular well into the late Seventies. The Mila Schön car has exceptional provenance, with a documented and photographed competition history and only two owners from new.”

The RSR sounds quite superb too, even at the relatively low speeds performed for photography. Maxted-Page & Prill, who has restored the lime-green RSR’s original Mila Schön-inspired livery, is delighted that the new owner has every intention of racing it again at Classic Le Mans and in the Classic Endurance Racing series. The last of the naturally aspirated 911 racers (before the advent of the Porsche Cup), the 3.0 RSR is a truly inspiring old racer. **911**



# THE *FIRST* MONSTER

A little-known piece of Weissach's history, this Martini-liveried Le Mans icon is one of the most important 911 racers ever built

Written by **Josh Barnett** Photography by **Dan Pullen**

**I**n 1972, Porsche launched the 917/20, a car designed for the Can-Am Challenge Cup, North America's no-holds-barred series for prototype racers. In the hands of George Follmer, the car dominated that year's championship, and in doing so helped to irrevocably change the face of the motorsport landscape during the Seventies and Eighties. How? The 917/20 was Porsche's first turbocharged racer, utilising two Kühnle, Kopp & Kausch turbos to produce a brutal 850hp from its 5.0-litre flat 12 engine.

A year later, Porsche upped their game even further with the Porsche 917/30, a 5.4-litre evolution of the previous season's machine that could turn out around 1,500hp in qualifying trim. Once again, the twin turbocharged car was the class of the Can-Am field, comfortably propelling Mark Donohue to that year's title. The 917/30 was so effective that it was almost single-handedly responsible for the decline of the series (which took a two-year hiatus after the 1974 season).

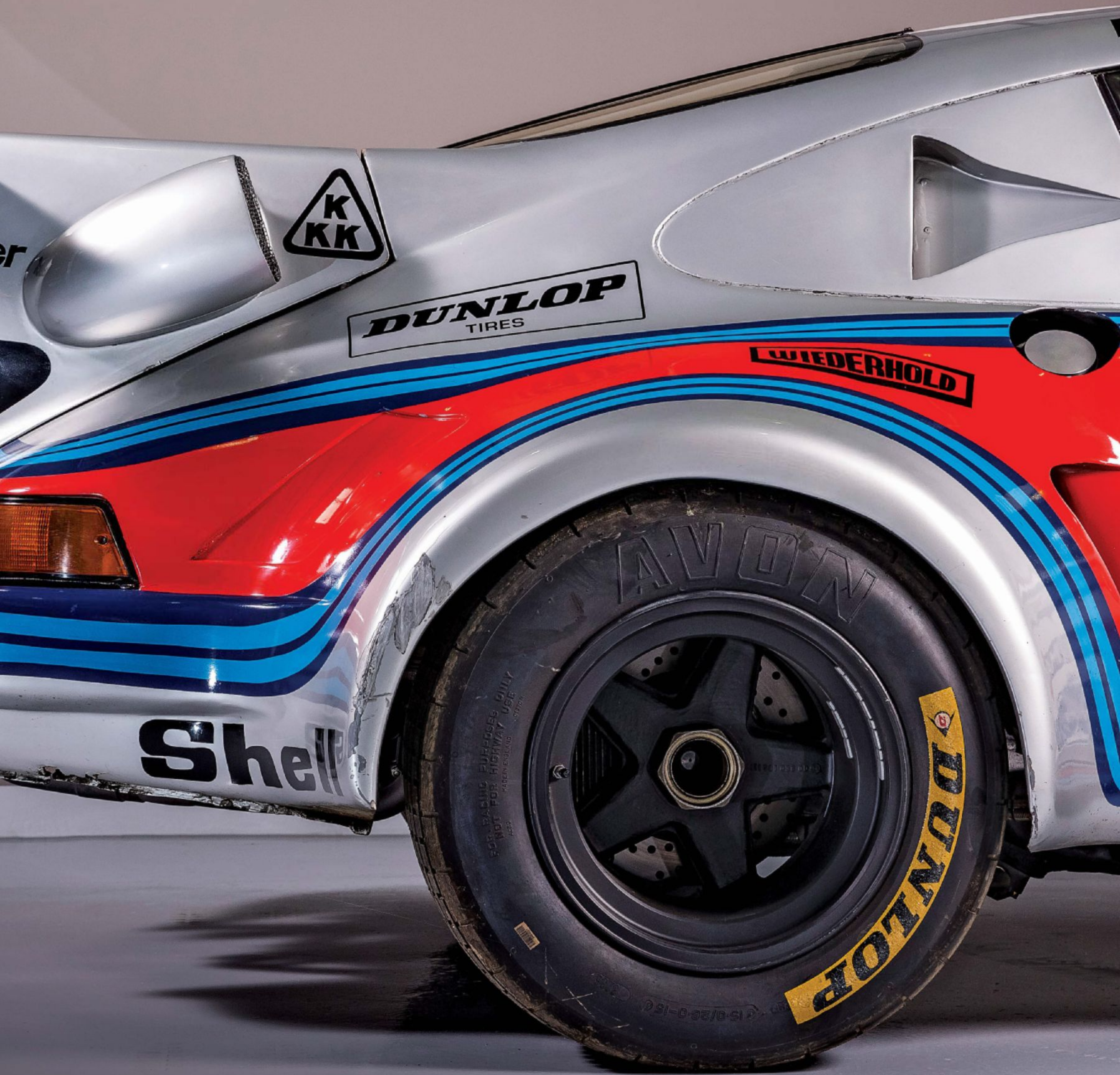
Thanks to the dominant fashion of the 917/30's success, turbocharging had well and truly proved its worth to Zuffenhausen's board, who immediately set about applying the lessons learnt on the track to furthering the Porsche 911 on the

road. First to arrive was a 2.7-litre, narrow-bodied test mule gifted to Louise Piech in 1973 (a car featured in **Total 911** issue 112) before the 930 was first unveiled at that year's IAA in Frankfurt. To help the development of the new 911 Turbo ahead of its launch for the 1975 model year though, Porsche wanted to prove the abilities of a turbocharged 911 in competition. To do so, they created this: the Porsche 911 Carrera RSR Turbo 2.1.

Designed to the FIA's Group 5 rules, the car would have to race against bespoke sports prototypes from the likes of Matra and Ferrari. This wasn't unfamiliar territory for Porsche though, as the year before, the Martini-liveried factory 2.8 RSRs were extensively modified with a wider rear track, huge 'Mary Stuart' ducktail wings, centre-lock wheels and 3.0-litre engines, forcing them to race among the prototype ranks for the majority of the 1973 season.

Chassis numbers 911 360 0588 and 911 360 0686 (often known as 'R6' and 'R7' respectively) still proved competitive on occasion, with the former famously winning the final running of the Targa Florio road race and the latter coming home fourth overall in that year's 24 Hours of Le Mans, both times with Gijs van Lennep and Herbert Müller at the wheel. ➔





<b>Model</b>	<b>911 Carrera RSR Turbo 2.1</b>
<b>Year</b>	<b>1974</b>
<b>Engine Capacity</b>	2,143cc
<b>Compression ratio</b>	6.5:1
<b>Maximum power</b>	480hp @ 8,000rpm
<b>Maximum torque</b>	461Nm @ 5,900rpm
<b>Transmission</b>	Five-speed manual 915-type
<b>Suspension</b>	
<b>Front</b>	Independent; MacPherson strut with Bilstein damper and titanium coil spring; lower wishbone, anti-roll bar
<b>Rear</b>	Independent; semi-trailing arm; Bilstein dampers and titanium coil springs; anti-roll bar
<b>Wheels &amp; tyres</b>	
<b>Front</b>	10.5x15-inch magnesium alloys; 10.5/23.0-15 racing slicks
<b>Rear</b>	16x15-inch magnesium alloys; 15.0/26.0-15 racing slicks
<b>Brakes</b>	
<b>Front</b>	300mm drilled and vented discs; finned calipers
<b>Rear</b>	300mm drilled and vented discs; finned calipers
<b>Dimensions</b>	
<b>Length</b>	Unknown
<b>Width</b>	Unknown
<b>Weight</b>	825kg
<b>Performance</b>	
<b>0-62mph</b>	3.2 secs
<b>Top speed</b>	189mph



The knowledge garnered by these prototypes helped Weissach to develop the Carrera 3.0 RSR for the 1974 season. However, these would be exclusively raced by privateers, freeing up the works Martini Racing Team to focus its efforts on the 911 Carrera RSR Turbo 2.1, four of which were built (three for racing and one for testing). While it used a G-Series '460' chassis as a basis, the same as a 3.0 RSR, the Carrera RSR Turbo 2.1 was, in reality, a markedly different beast, requiring the full attention of the factory.

At the rear sat a 2,143cc flat six engine with a single KKK turbocharger. While the displacement may seem random, the Group 5 regulations stated a maximum engine capacity of 3.0 litres (introduced after the dominance of the 917s earlier in the decade). The equivalency factor for forced-induction cars was 1.4, giving a total capacity of just over 2.1 litres. To achieve this, Porsche reduced the bore diameter to 83mm (7mm smaller than the 3.0 RSR) and shortened the stroke to 66mm with the same crankshaft design as the 2.0-litre Porsche 911.

Like the standard RSR, the RSR Turbo 2.1's engine featured a magnesium alloy crankcase, polished titanium con-rods and sodium-cooled valves. Enlarged oil pumps were tasked with keeping the flat six lubricated, while there was also a dual ignitions system with Bosch mechanical fuel injection. The engine bay came in for extensive modifications, with the rearward chassis legs drilled out to save weight and the rear bulkhead removed, replaced by a tubular subframe, used to support the turbocharger and large intercooler. Running 1.4 bar of boost, the flat six produced 480hp at 8,000rpm (impressive statistics, even by today's standards). This power was fed through the RSR's standard 915 gearbox, an 80 per cent locked differential and uprated driveshafts.

Suspension-wise, the torsion bar system seen on the road-going 911 and 3.0 RSR was replaced with a MacPherson-style strut, Bilstein damper and titanium coil spring at the front, mounted to a lower wishbone. At the rear, a similar damper-and-spring arrangement was utilised, connected to a semi-trailing arm. Spherical bearings were used all around, with anti-roll bars at either end allowing some degree of dynamic tuning. While the front





wheels and tyres were carried over from the 3.0 RSR, the rear wheel width was increased to 16 inches, with the magnesium alloys housing drilled/vented discs and finned calipers from the 917.

In order to save weight, the majority of the body panels were manufactured in fibreglass, including the entire door assemblies (which hit the scales at just 4.5 kilograms for the pair). After extensive testing, the fuel tank – traditionally located in the front recess of racing 911s – was moved inside the cockpit, sitting behind the passenger seat and taking up the majority of the space usually occupied by the rear pews. The change helped to keep the car's balance more stable as fuel burnt off during a stint, although it also helped to keep the majority of the Carrera RSR Turbo's mass over the back axle. With 70:30 weight distribution to the rear, Porsche was clearly focussed on helping the traction of the turbocharged monster, albeit at the cost of an incredibly light front end, accentuating the 911's traditional understeer.

As well as the extensive lightening and engine modifications, the Group 5 regulations also allowed Porsche to experiment with more extreme aerodynamics. At the front, the bonnet's line is

continued onto the front bumper, featuring a deep 'air dam' chin and lip spoiler. However, it is the rear end that grabbed the most attention. Gone was the 911's curved rear screen, instead replaced with a nearly horizontal unit from which two angular wing supports extended on either side. The rear three-quarter windows were removed, replaced by fibreglass NACA ducts that fed air into the engine's intake while the right-hand wing support was home to a large scoop for the turbocharger. Between the two wing supports was another vent, this time feeding the intercooler with fresh air.

The pièce de résistance, though, was undoubtedly the huge, adjustable rear wing. From almost any angle it stole the visual show, causing displeasure from the Porsche board. In order to provide some semblance of the 911's classic silhouette, it was ordered that the rear wing should be painted black, helping it to blend in with the tarmac when viewed from the grandstands.

Three different chassis were used in competition by the factory Porsche team during the 1974 season. 911 460 9016 and 911 460 9101 (known as 'R9' and 'R11') were the first to see action at the non-championship Four Hours of Le Mans, run on

the shorter 'Bugatti' circuit. The same two cars took part in March's test day on the Le Mans track before heading to the Monza 1,000km on 25 April, the first round of the World Sportscar Championship.

With 'R9' as a spare car, van Lennep and Müller finished fifth overall in 'R12' before heading to the Spa 1,000km and getting the Porsche 911 Carrera RSR Turbo 2.1 onto the outright podium for the first time. At the Nürburgring 1,000km, 'R9' would be back in action as Manfred Schurti and Helmuth Koinigg finished seventh, one place behind the sister car of van Lennep and Müller. The latter duo would switch to 'R9' at Imola for round four, but after retiring, a new chassis – 911 460 9102 – was readied for the 24 Hours of Le Mans. That car, christened 'R13', is the very car featured in these pages. Driven by van Lennep and Müller in that year's running of the famous French endurance event, Porsche nearly pulled off a giant-killing performance of remarkable proportions, only to be scuppered by their own sportsmanship.

As was the case throughout the 1974 season, the RSR Turbo 2.1s were not expected to challenge for overall victory against the hordes of outright prototypes of Matra, Alfa Romeo and Mirage. ➔



Weissach's hopes were further dashed after just 87 laps when 'R12' was forced out of the race with a damaged connecting rod. However, in the hands of van Lennep and Müller, 'R13' was running reliably in second, bested only by the Matra of Henri Pescarolo and Gérard Larrousse.

Heading into Sunday morning, the 911's gearbox – heavily stressed by the enormous torque and turbo lag – broke, leaving its Dutch-Swiss driving duo stuck in fourth gear, losing them around 40 seconds a lap to the Matra. Then, with just over four hours to go, the Matra's gearbox also failed. The RSR Turbo was back in with a chance – at least, it would have been if Porsche hadn't sent two mechanics over to the Matra pits to help repair the French team's gearbox. The Matra MS670 used a Porsche-designed transmission, leaving Weissach obligated to provide assistance. After losing 45 minutes, Pescarolo was back out, narrowly retaining the lead. With Porsche unable to effect a similar

gearbox replacement on their 911 (the transmission mounted awkwardly in front of the engine), the Matra pulled out a six-lap lead, leaving the Carrera RSR Turbo 2.1 to take a still-impressive second.

'R13' was rested for the 1,000km of Zeltweg before returning as Porsche's sole entry at the Six Hours of Watkins Glen, where van Lennep and Müller once again finished second overall behind a Matra. It was to be the last piece of silverware for any 911 Carrera RSR Turbo 2.1, as Porsche could only manage seventh and fifth in the season-ending 1,000km races at Paul Ricard and Brands Hatch. It was still good enough to secure third overall in the World Sportscar Championship though, three points ahead of Alfa Romeo's full-fat T33 prototype.

With the season over, the Turbo 2.1s were mothballed (although 'R13' would surface again in 1977, taking part in the 24 Hours of Daytona in the hands of Interscope Racing before passing onto Vasek Polak Racing for that year's 3 Hours of Mid

Ohio). However, the car's impact would be felt for many years after its service came to an end, with Porsche implementing many of the lessons learnt on the Turbo 2.1 onto the legendary 935 racer. It's easy to see the resemblances, from the sloping lines of the front bumper, to the extended wing supports.

That gives 'R13' – the most successful car of the trio – huge historic significance. 'R9' sold at auction in 2012 for \$3.245 million (when Gooding & Co had estimated it at between \$1.75-\$2.25 million). With its added glories, 'R13' is likely to have proved a sound investment for its current custodian, the Fica Frio Collection. In reality though, it is impossible to put a value on a car like this. The worth of Porsche's first 911 monster cannot simply be measured in financial terms. Without the Carrera RSR Turbo 2.1, the fire-breathing leviathans of the late Seventies and Eighties would probably not have existed. At the very least, they would not have enjoyed the success they did. **911**

## The Carrera RSR Turbo 2.1's Le Mans legacy



**1976**  
**935**

After a year out in 1975, Porsche returned to Group 5 racing with the silhouette 935 racer. Initially featuring the 911's upright wings, the 935 switched to the famous flatnose design in its debut season. Although the works 935s never triumphed at Le Mans, Kremer Racing took their K3 version to the top of the podium in 1979.



**1986**  
**961**

Based on the Porsche 959 supercar and built to Group B regulations, the 961 made its racing debut at the 1986 24 Hours of Le Mans, finishing seventh overall in the hands of René Metge and Claude Ballot-Léna. A year later, the car was again rolled out at La Sarthe, but an accident meant the 961 didn't finish the race.



**1995**  
**993 GT2/GT2 Evo**

Built to the then-new GT2 regulations it was named after, the 993 GT2 had a steady start to life at Le Mans, finishing 15th overall in 1995. The following year it would win its class, repeating the feat in 1997, when it also achieved its best overall finish of ninth in the hands of Elf Haberthur Racing.



**1996**  
**911 GT1**

Porsche built a bespoke, mid-engined GT1 racer under the 911 badge. They finished second and third overall in 1996, but disaster struck the Evo versions in 1997 when they proved both unreliable and uncompetitive. Returning with an all-new car in 1998, Porsche took its 16th outright Le Mans victory.





Inside the workmanlike cockpit, van Lennep and Müller were greeted by few creature comforts, though they did get two boost gauges; the fuel tank was also moved from the front compartment into the cabin



A myriad of fibreglass vents help to feed air to the business end of the RSR Turbo 2.1 and its huge KKK turbocharger; magnesium wheels from the 917 had to help transfer nearly 500hp onto the tarmac



# THE U.S. CARRERA RS

The factory 2.7 RS may have been banned in the US upon its release in 1973, but Peter Gregg combined with Porsche's Helmut Bott to offer Brumos customers a Rennsport-inspired special, as Total 911 investigates...

Written & photographed by **Sean Smith**



**P**eter Gregg was born in New York City on 4 May 1940. He attended the elite Deerfield Academy and in 1957 he moved on to Harvard University studying for a degree in English. He was gradually drawn to car racing in his spare time, competing in gymkhanas, hillclimbs and ice races, before temporarily moving to Europe and attending the Centro Sud Driving School.

By 1964 he was behind the wheel of a very serious Porsche (a 904) and by 1965 he had bought himself a Porsche dealership – and not just any dealership; the famous Brumos Porsche. Gregg had purchased the shop after the death of its founder and fellow Porsche racer Hubert Brundage (Brumos was a cable address abbreviation of Brundage Motors).

As a race-car driver, Gregg was an SCCA Southeast Division champion by 1967 in two classes and had wins at both Daytona and Sebring. The next year he entered into SCCA competition in the under two-litre class of the Trans-Am Series, winning six races and the title in 1969, at the same

time taking the SCCA B Sedan title. Incidentally, a young chap in a street-legal Corvette beat Gregg and his factory Porsche in autocross that same year. That young man was Hurley Haywood. Racing history would be made from that meeting.

Mean while in Zuffenhausen, by 1973 Porsche was building the RS Carrera in large enough numbers to satisfy FIA's Group 4 regulations, but because of emission standards there was no way these cars were going to be imported into the United States. Gregg saw the opportunity for compromise between Porsche, its fanatical Stateside customers loyal to Brumos, and US regulators, so a series of special-order Porsche 911s were soon created.

The 'Peter Gregg edition' 911s were a co-operative effort: Peter Gregg and Dr Helmut Bott of Porsche AG Research and Development were the co-creators. Bott had worked closely with Gregg on his competition cars and so making suggestions on the modifications to these road-going specials proved the perfect partnership. Similarly, Gregg

was faithful to Porsche, so all parts that were used for the modifications had to be Porsche factory parts, and all work had to be approved by Porsche.

Hurley Haywood remembers these cars well. Peter wanted to celebrate and commemorate their overall win at Daytona with a special road-going 911. "Five cars were built", Hurley recalls to us, before continuing: "We have one in our museum. Peter was very particular about who got one of these cars. He didn't want someone getting in over their head. He wanted the prospective buyer to have training before we'd hand over the keys." 911-330-0922 was the first such car to be built and soon became Peter's daily driver and demonstrator. And drive it he did, for the next 5,000 miles.

To start with, a 911S was shipped from the factory in white with a black leather interior. The first task was to have steel flares added to the car. ➡





At the time, the 911S did not come from the factory in this style. The car was then dispatched to a body shop to have the work carried out. Unfortunately, the first example was promptly stolen from the body shop, later turning up as a burned-out shell. Another car was quickly ordered but there was not a white 911S to be had, so a silver equivalent arrived from Stuttgart instead. Again the car was fitted with the steel flares. The standard 911 steering wheel was swapped for a smaller-diameter 914/6 wheel, which Gregg felt was more comfortable.

Gregg's previous racing experience told him he had to upgrade the headlights, so a pair of Cibie quartz iodines replaced the original equipment units. A ducktail and modified front spoiler were

added, with the overriders removed front and back, along with Euro-spec brake and parking lenses. Sway bars and dampers were brought up to RS specification, and the uprated Porsche was then endowed with the well-known Brumos red and blue road stripes. This was the only road car painted this way from new.

Peter knew how to set up a race car, and all that knowledge went into making a wonderful-handling road car without the high-strung tendencies of a race car. Proof of how special this car was came when it was sold to its first registered owner, Dr Bernard Morgan, in 1974. Its value was twice that of a normal 911S. Dr Morgan traded the only 916 in the country back to Brumos for Gregg's modified 911,

such was the clout of this US 'Carrera RS'. Morgan put over 45,000 miles on the car before selling it on to Dr James Simpson.

Dr Simpson then added over 80,000 miles to the car's odometer while he was moved around the country by the US Army. However, in 1986 Simpson was in a minor shunt with the Porsche and instead of repairing the car, he negotiated with Brumos to buy the car back. They were happy to comply. 911-330-0922 returned to the dealership to be restored and have the motor brought up to 2.7 RS specification. It then became Brumos president Bob Snodgrass' personal car.

Snodgrass kept the car for a couple of years before passing it on to Vincent Di Umberto, ➔

## Porsche in the US

**Total 911** looks at Porsche's history in its largest market and how American influence shaped its cars

One of the surprises of the 1948 Geneva Show was an open two-seater from Porsche, previously known only as an automotive engineer. Viennese Max Hoffman, a former motorcycle racer and now a New York car dealer, saw the potential for this neat sports car in America. In 1950 he imported three Coupes. With new distributors in Belgium and France and a growing reputation as purveyor of competitive road racers,

Ferry Porsche was happy simply to have an outlet in the US. But Hoffman was much more ambitious. The 30 cars sold in the USA in

1951 became 600 in 1952, and Hoffman had no hesitation in telling Ferry what his cars needed to appeal to Americans, hence the rapid development of the 1.5-litre engine from the original – and to American eyes, ridiculously small – 1,131cc unit. Hoffman understood US taste – he had Porsche redesign the dash with a prominent rev counter and at his suggestion Ferry sketched what would become that great Porsche identity symbol, the Porsche crest. Pressure from Hoffman led to the 1954 Speedster, a minimal-equipment roadster that sold 5,000 examples in four years. Another Viennese expatriate, John von Neumann, did for the West Coast what Hoffman achieved on the East. Van Neumann

was also a racer and sold the 1500 RS, which Hoffman told Ferry to brand a 'Spyder' – more enticing than a set of figures. Richie Ginther cut his teeth on a van Neumann car and other racers improved the output of the flat fours. Chevrolet engineer Zora Arkus Duntov, who raced the works 1500 RS at Le Mans in 1954 and '55, persuaded Porsche of the virtues of anti-roll bars and to create a skid pan, which would lead to the establishment of Weissach. By 1959, the US was taking 40 per cent of all Porsches – Germany came next with 23 per cent – and the company set up its US subsidiary, Porsche of America Corporation. If in the Fifties Porsche



**US automobile importer Max Hoffman in a 'Glöckler-Porsche'**



**The 1953 America Roadster was an early sales success**



New bumpers and wider Fuchs helped give this 911 the RS look, but it wasn't until years later that the motor itself was brought up to RS specification



learned to understand American preferences, as the 911 took over from the 356C in the Sixties, a bigger challenge was posed by federal regulators. Following Ralph Nader's infamous 'unsafe at any speed' quote, it appeared that open cars could be banned; in the climate of uncertainty, Porsche designed the famous Targa top, creating an enduring and successful 911 derivative; Porsche introduced the Sportomatic transmission for the US only to find take-up in Europe was greater. North American requirements would lead to the creation of two types of 911: the US version and the Rest of World (RoW) model.

Initially the differences were detail, like the famous US eyebrow headlamps, but became more complex when catalytic converters became mandatory. For 30 years, harsher

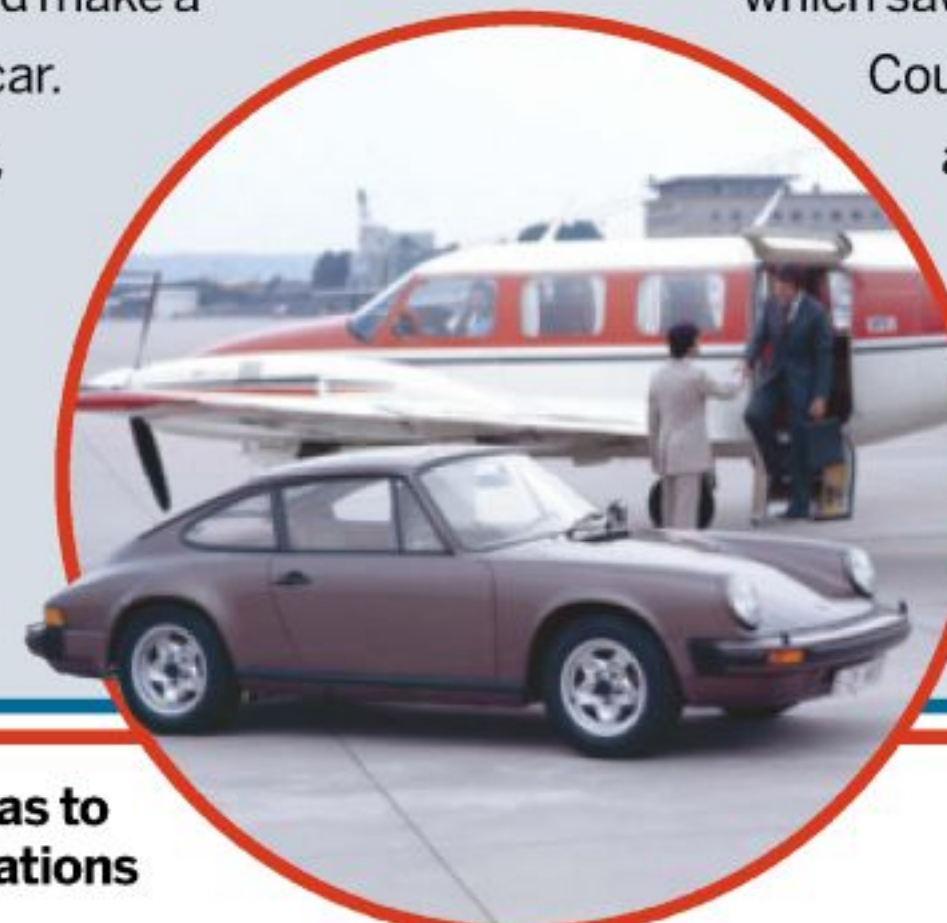
emissions controls would deprive Americans of a succession of the fastest Porsches, beginning with the 2.7 RS, built only as a RoW car. Otherwise Porsche engineers coped successfully with federal exhaust-pipe legislation, which asphyxiated the American 'muscle' cars; meanwhile the controversial impact bumpers designed to meet US five-mile-per-hour crash regulations quickly became part of the 911's character. However, concerns over the rear-engined 911's continued acceptability in the US threatened its long-term existence, and Porsche's first non-family CEO, Ernst Fuhrmann, believed the company should make a classic front-engined rear-drive sports car. To build this 'better Chevrolet Corvette', Porsche turned to its two designers who had worked at GM, Tony Lapine and Wolfgang Möbius. The result was the futuristic 928, a car that from any other manufacturer might have been

an unqualified success, but because it came from a Porsche rooted in its rear-mounted air-cooled flat-six tradition, caused divisions both within the firm and among its fans. By the time the 928 came to market, the external threat to the 911 had evaporated, but internally, an increasingly isolated Fuhrmann had terminated 911 development.

This scenario changed rapidly under the new CEO. American Berlin-born Peter Schutz brought his Cummins diesel engine salesman's talents to bear, particularly in the US, and presided over an upswing in Porsche's fortunes, which saw a much-needed 911 Cabrio join the Coupe and Targa. Schutz talked about buying a Porsche as buying into a lifestyle, where affluent owners drove their Porsches to the local airfield and took off in their private plane powered by an aviation version of the flat six. It was a very Stateside vision that never quite



A Porsche Club of America meet in Del Mar, USA, 1963



The move to impact bumpers was to cater for new US crash regulations



Far more than a mere RS replica, this 'Peter Gregg 911' was concocted using genuine factory parts – including for iconic items such as the 2.7 RS ducktail

whose time with the 911 was brief before it became the pride of Michael Meade of Dallas Texas. Meade was not happy with the bodywork, so he stripped the car down and redid the fender flares before putting another 50,000 miles on the silver 911.

That's when the 911 came onto the radar of Frank Allocca. Allocca had been a Porsche dealer at the same time as Gregg and realised the car's significance. While driving the Porsche a few years after purchase, Frank had a run-in with another car, so it was time for repairs and some more refreshing.

The 911 was sent off to Automobile Associates of Canton in Connecticut where it was given a

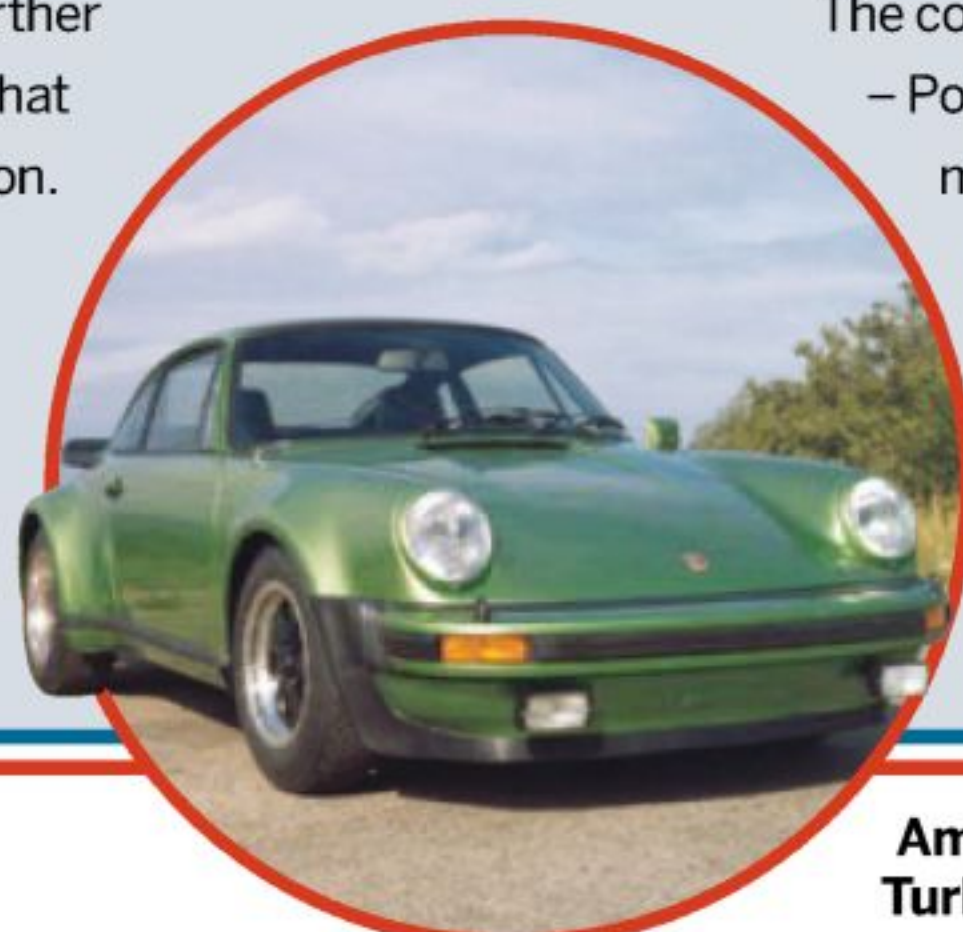
thorough going-over. The body, suspension and transmission were all redone, as well as all hoses and bushings. When the engine was taken apart, the 2.7 RS modifications were all still intact.

Even now, with close to 200,000 miles on the clock and a few restorations under its ducktail, 911-330-0922 is a time capsule harking back to a significant period in Porsche history. Sitting in the driver's seat, it has the familiarity of all early 911s but there is a unique aura to this machine. I'm not so sure if it's the stripes or smaller-diameter steering wheel, but it somehow still holds the memory of Peter Gregg in its DNA.

The car is delightfully responsive and balanced to drive. It provides you with all the power you need to have fun with the classic 911 setup, and gives you the confidence to go searching for its limits. When you're not pushing on, you can also cover many happy miles in this special 911 with little or no wear to yourself, as evidenced by its previous owners. Pleasingly, this is a well-appointed road car from a racing lineage, just like every 911 crafted straight from the factory. Not many could rise to the level of racing excellence Peter Gregg attained, but this uncommon 911 can give you a place to dream about it. **911**

made it into reality, for while attempting to break into the closed US aviation market was one challenge, sustaining US sales – which by 1985 had increased fourfold in four years – was quite another. The dollar began to plummet and with it Porsche's US profits to the point where by 1990, the company was on the brink of bankruptcy and rumours of a takeover abounded. Porsche's US woes seemed unending: Schutz's reorganisation of the dealer network had caused acrimony, as did Porsche's withdrawal from the CART; the refusal of US customs to allow import of the 959 for which clients had paid a hefty deposit was a further humiliating setback and contributed to that model's premature and costly termination.

Wendelin Wiedeking's return to Porsche in 1991 would begin a slow upturn. After being deprived of the Turbo until 1986, US customers were once again disappointed not to be able to get their hands on the 964 RS or 993



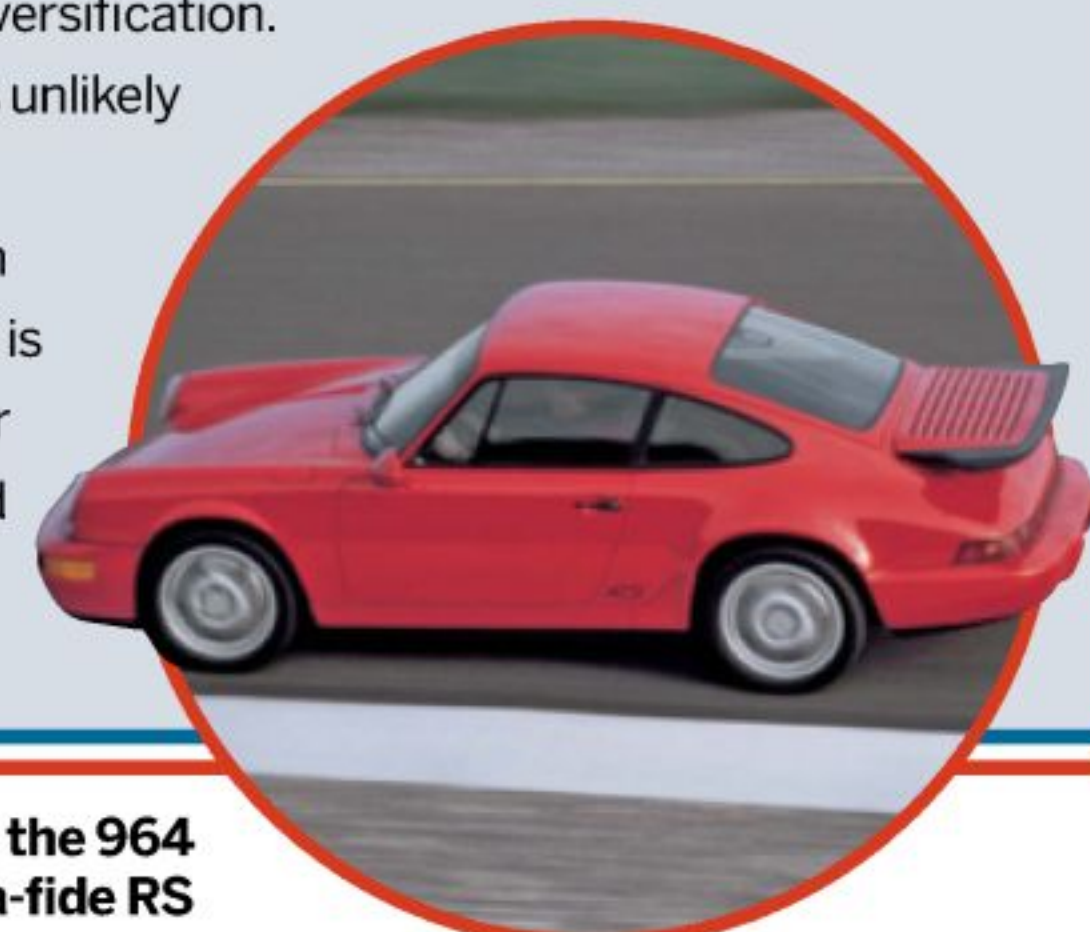
Americans were denied a Turbo until 1986...

RS, as neither was US-crash tested. However, a specific US-only 911, the RS America, was created, thanks partly to Vic Elford, doing much to boost 964 sales. In a market where 40 per cent of Porsche sales were open cars, the 1996 Boxster was acclaimed and held the fort until Cabrio and Targa 996s appeared. By now Porsche was homologating models for over 70 markets, so the old RoW/US distinctions had lost relevance. Nevertheless, US enthusiasts could not import the 996 GT3 until 2004 – the last time Porsche's most important market would be deprived of a 911 derivative.

The commercial decision to build the Cayenne – Porsche needed to diversify and the SUV market was eight times bigger than the sports car market – went ahead only after wholesale support in the US for the Porsche 4x4 was confirmed. Strong sales there (the Cayenne outsells the 911 by three to one) assured the continuity of Porsche's

sports cars. The 2009 introduction of PDK did not prove popular with US enthusiasts and sustained US demand (25 per cent of orders) for the manual 'box justified its continuity and the development of the seven-speed.

After 50 years as Porsche's main outlet, some years taking up to 55 per cent of production, the US may well yield to China as Porsche's largest market. For some 40 years, Porsche's sales figures in the United States were crucial in allowing the company to continue to develop the 911 and later the mid-engined sports cars, and provided the basis for its huge 21st-century diversification. Without that, Porsche is unlikely to have survived as an independent concern; in today's global market, it is hard to imagine China or any other country would ever wield such an influence again.



...and had to make do with the 964 RSA instead of a bona-fide RS



“Even with 200,000 miles on the clock, this is a time capsule harking back to a significant period in Porsche history”

Though the famous 'Carrera' script is missing from this RS of sorts, the Brumos colours are just as evocative for racing

# ULTIMATE 964 RS?

Is a 964 RS with 993 RS power the perfect Rennsport concoction? Total 911 heads to Germany to find out...

Written by **Glen Smale** Photography by **Ali Cusick**









“It’s the **best** of both worlds, so who cares if it’s not an original?”

The huge, fixed rear wing and wide rear arches housing Speedline wheels are indicative of the 964 3.8-litre RS from the factory

It is often overlooked that 1992 was a significant year for Porsche. While many may instead highlight a year later when the last air-cooled 911 was revealed in the 993, 1992 was the final year of the 964, which brought with it the return of a revered moniker: the RS. It had been eight years since the appearance of the very limited edition SC RS, and almost 20 years since the heyday of the 2.7 and 3.0-litre Carrera RS models, and so in the 964 Rennsport, Porsche once more dedicated an extremely focused model to

the 911 range that was aimed at the real enthusiast sports car driver. In tandem with the earliest 911 RS, the 2.7 Carrera, which was available in Touring, Sport (sometimes referred to as Lightweight) and even Racing trim, the 964 RS could be specified in Touring, Sport and track-ready N/GT trim. Costing DM40,000 more than the 964 Carrera, 2,282 964 Rennsport models were produced, though just 90 of these were of the Sport variety, while 290 of the N/GT were sold for track use, leaving 1,902

units in Touring trim. For a limited-edition high-performance model, this was a healthy production run compared with the 1973 Carrera RS, of which just 1,508 units were built.

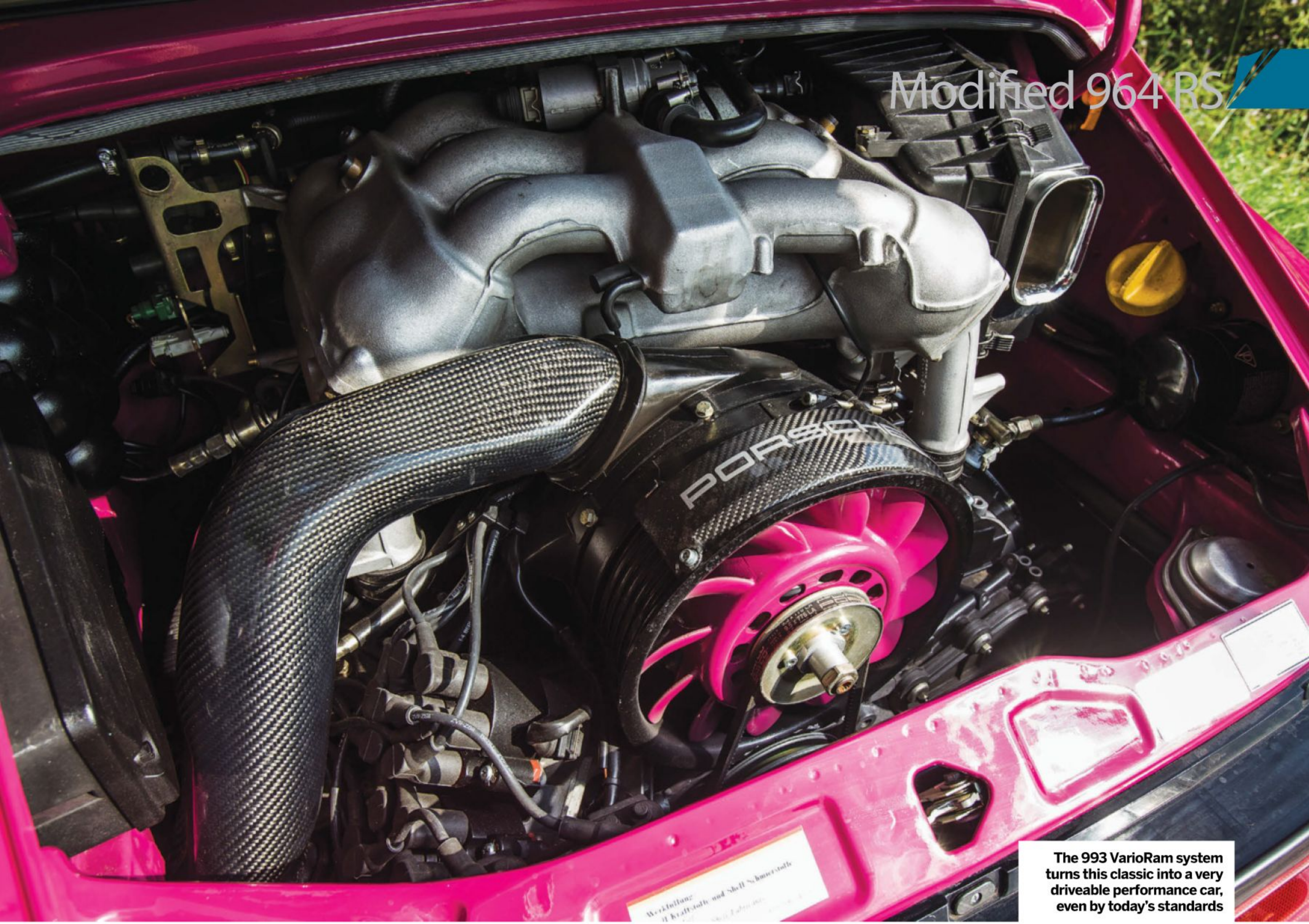
In terms of specification, the 964 RS had the same top speed as the Carrera 2 (161mph). However, its sprint times were improved. The M64/03 engine was more powerful, and the RS was 230 kilograms lighter as a whole (in Sport trim), with weight reduction going as far as eliminating unnecessary wiring from the car’s harness for those components not included on the RS. With a tweaked chassis that sat the RS 40mm lower than the standard Carrera, the 964 Rennsport was a true performance machine. It was certainly worth the eight-year weight for that RS moniker to return to the 911.

By 1995, the 993 RS had upped the game yet again, with power output at 300bhp and a top speed of 172mph, despite a weight increase of 50 kilograms over its predecessor. Launched at the 1995 Amsterdam Auto Show, the 993 RS was now fitted with a larger 3,746cc engine, while the body was treated to a fixed, raised rear wing, an aluminium bonnet, and thinner side and rear glass. Most importantly, on the 993 the RS boasted Porsche’s celebrated VarioRam induction system with larger intake and exhaust valves. The 993 RS gearbox also came with six gears, compared with the five-speed unit of the 964, and the 993 RS



**964 RS and 993 RS production numbers**

Type	Model	Year	Touring	Sport	N/GT	RSR	Total
964	Carrera RS 3.6	1992	1,902	90	290	-	2,282
964	Carrera RS 3.8	1993	55	-	-	45	100
993	Carrera RS 3.8	1995	224	-	-	-	1,014
		1996	563	227	-	-	



The 993 VarioRam system turns this classic into a very driveable performance car, even by today's standards



The interior of the 964 has largely stayed factory trim, while outside has seen a full-blown conversion to widebody RS 3.8 spec



## The 'RS' badge

1973 marked a new chapter in the Porsche genealogy as the RS moniker was bestowed upon the 911. This identified the top performing sports car in the 911 range that was road legal. It was the brainchild of Porsche's chairman, Ernst Fuhrmann, in an effort to bring their racing programme back in line with their production models after the crippling, albeit highly successful, race car programme with the likes of the 906, 908, and 917. The 1973 Carrera RS 2.7 (below) was therefore the first in what would become an iconic sub-brand, but the ever-cautious Porsche marketing people underestimated the takeup for the car. Initially just 500 cars were planned for production, but eventually 1,508 were produced over a two-year period.

The Carrera RS 3.0 followed in 1974, but there would be a ten-year wait for the SC/RS and a further eight years before the 964 RS 3.6 appeared in 1992. Heritage is never built overnight...



boasted a 0-62 improved sprint time of five seconds flat. Only 1,014 units were produced, of which 227 were despatched in lighter Clubsport trim.

Whether in 964 or 993 form, the RS is a simply supreme Porsche 911 – for most. However, the Rubystone red example in our pictures is the result of an amalgamation of those successive generations of Rennsports – a 'best of both', if you will.

Sold as a 964 RS by Porsche Zentrum Düsseldorf in 1993, its first owner used it happily for everyday driving, but an increasing partiality to trackday activity led to the car being prepped for the 2006 trackday season.

The opening event was the well-known and popular four-day Scuderia Hanseat, held on the Nürburgring's Nordschleife. The event was brought to a premature end for the 964 RS as intense rain compromised the performance of the well-worn semi-slick tyres. On the drive home from the circuit, the heavy rain would once again have a detrimental effect on the 911, causing it to leave the road, finally coming to rest in an adjacent ditch. Despite the relative 'soft' impact, there was significant panel damage down the left-hand side of the car. What's more, the insurance company would not pay out because there was no tread left

on the tyres, and so the car was de-registered on 27 April 2006.

The next chapter in this 964's life began in the capable hands of Hans Schroeder, a long-time Porsche specialist in Duren, who had always wanted a 964 RS 3.8, which was too expensive due to its limited numbers. The panel-damaged 964 RS provided Schroeder with the perfect donor car for his 'RS 3.6 to 3.8' project, which he parked in the corner of his workshop to work on when time allowed. Schroeder proceeded to buy all original RS 3.8-litre specification panels, including front and rear fenders, wide bumpers and the red caliper-clad RS 3.8 brake system. He even managed to buy the very last set of original Speedline wheels that Porsche had at the time.

Of course, if you take a 3.6-litre car and merely fit wider body panels, it stands to reason that the greater body width would in effect render the car slower than a narrow-bodied equivalent due to increased weight and drag. To combat this, Schroeder acquired a 993 3.8-litre engine that he promptly dismantled and built up to RS 3.8 spec. By increasing the compression ratio and fitting higher-lift cams, power was pushed to 325bhp, which was 25bhp up on the standard 993 RS 3.8 factory figure.

“This is an  
**exemplary**  
Rennsport package”



The gearbox, a 993 six-speed unit, was updated with 993 RS ratios to cope with this increased power. To prepare the car for trackday work, Schroeder replaced the original RS suspension with Bilstein adjustable PSS9s all round.

Sadly, while Schroeder started this formidable project build in 2008, once he had completed it three years later at the age of 69, he came to the conclusion that he was probably a bit too old for such an extreme car. As such, a decision was made to sell the Rubystone red 964 RS.

The car has since been sold by German Sports Cars, as proprietor Thomas Schmitz explains: "I bought the 964 in August 2014. I liked the idea of the car, because it is not a replica. The base was an original 964 RS, so the value is in the base and in the chassis number. What's more, the car is very powerful – it's a fantastic, fun car, and if somebody wants to have an affordable RS 3.8 and wants to do some trackdays and enjoy driving it, then this is absolutely the right Porsche." A genuine RS 3.8 these days, if you can find one, would set you back between €400,000–€550,000, and so at €150,000 this car offers a lot of value for money.

Approaching the 964 RS ahead of my test drive, I'm intrigued to see that the striking Rubystone



The huge, fixed rear wing is a trademark 3.8-litre 964 Rennsport giveaway



red hue is continued inside on the seat inserts, door pulls and safety belts. The interior is still the factory 964 RS specification, which means it has the thin carpets, two Recaro bucket seats and door cards with pull straps. The Recaro bucket seats are comfortable while offering a firm hold, and the only deviation from the factory specification is now staring at me: the optional three-spoke Sport RS steering wheel was installed by Thomas as a replacement for the four-spoke standard option.

As I head out for my drive, Thomas, accompanying me, opines that only a half cage and Michelin Cup tyres are what's needed for this to be a supreme, fire-breathing trackday car. He says: "It has the big brakes, a second oil cooler, air ducts for brake cooling, stainless steel brake hoses, adjustable suspension by Bilstein, plus the shock tower brace and an adjustable rear spoiler. It just spells high performance."

Despite the track-orientated setup, this 911 hasn't lost its road-going capabilities, as demonstrated by Thomas's decision to take the car on a 1,600 kilometre round trip to last year's Goodwood Festival of Speed: "I wanted the trip to be one to remember, so we registered the car the day before the trip, fuelled it up and checked tyre pressures. We adjusted the damping to setting '5', which is medium – enough for a comfortable drive, but also with good road holding," Schmitz enthuses.

The sentiments from Thomas's drive to Goodwood are quickly echoed here in the German countryside. The symphony of sound emanating through the stripped interior from the VarioRam engine is unforgettable. Power is instantly accessible throughout the rev range, and the 3.8 RS lookalike feels beautifully lithe through corners.

The narrow-bodied 964 RS is a mesmerising performance machine, yet with the benefit of a more powerful engine melded to a refined suspension, the result is a breathtaking Rennsport experience. Refreshingly, usability on the road hasn't been compromised either. With a simple adjustment in damping, a smooth ride is obtainable, while the gearbox is palatable even on a cold start, before complementing a spirited driving style with lightning quick shifts. This is an exemplary Rennsport package – and don't forget, this is a classic RS with a price tag that maintains usability, giving you the best of both worlds. Who cares if it's not an original? **911**

# Modified 964 RS



<b>Model</b>	<b>964 RS 3.8 (modified)</b>
<b>Year</b>	1992
<b>Engine Capacity</b>	3,746cc
<b>Compression ratio</b>	13.1:1
<b>Maximum power</b>	325bhp @ 6,500rpm
<b>Engine modifications</b>	Cylinder heads modified on flow bench; higher-compression pistons and cylinders; Schrick high-lift cams, rockers and arms
<b>Transmission</b>	Standard 993 six-speed converted to RS spec, with steel synchro rings
<b>Suspension</b>	
<b>Front</b>	Bilstein PSS9, fully adjustable
<b>Rear</b>	Bilstein PSS9, fully adjustable
<b>Wheels &amp; tyres</b>	
<b>Front</b>	9x18-inch Speedlines; 235/40/ZR18
<b>Rear</b>	11x18-inch Speedlines; 285/35/ZR18
<b>Dimensions</b>	
<b>Length</b>	4,275mm
<b>Width</b>	1,775mm
<b>Weight</b>	1,210kg
<b>Performance</b>	
<b>0-62mph</b>	Not tested
<b>Top speed</b>	170mph+



— SHARKWERKS GT3 RS 4.1 —  
**SUPREME 997**

SharkWerks' 4.1-litre Rennsport is touted as being capable of unlocking the full potential of the 997 GT3 RS. Total 911 drives the car in hair-raising 2015 specification and finds out why it's better than ever...

Written and photographed by **Ian Kuah**









Aside from its Gulf-inspired livery, the SharkWerks GT3 RS doesn't appear too dissimilar to a factory variant. Under the decklid is a different story, however...

**M**y first acquaintance with the blue-and-orange SharkWerks 997 GT3 RS was in November 2011, shortly after Alex Ross and his team took delivery of the car. Barely run in and in 3.8-litre specification at the time, it had just received the SharkWerks exhaust, ECU, suspension, plus wheel and tyre upgrades. I used it as the reference point for their 997 GT3 3.9, and one of their more lightly tuned 997 GT3s.

With even more power and torque than the factory 4.0-litre RS, which I had driven that summer, the GT3 3.9 was a most impressive motor, and I came away from my first visit to the Fremont-based Porsche tuner with more than a little reverence for their work and enthusiasm.

Fast-forward to late 2013, and Alex had emailed me to say that their 4.1-litre conversion on the GT3 RS was finally ready to be driven. Having been impressed with the 3.9-litre conversion in the GT3, I was expecting fireworks from its bigger Rennsport brother, and I was not disappointed.

The 4.1 proved deeply impressive from the word go, oozing power and torque everywhere. It quickly became obvious that you could drive everywhere one gear higher than the factory 3.8 GT3 RS for any given speed, with plenty of 'go' on tap if you needed to accelerate away quickly.

The big-displacement motor simply makes everything more effortless, and will pull strongly

from just 1,200rpm in fourth. In fact, if you could slip the clutch enough to pull away in fourth, you could drive everywhere in that gear within all normal road speed limits.

You only have to look at the torque curve to see why. The 4.1 makes between 85-105Nm more torque than the factory 3.8 GT3 RS between 2,900-5,300rpm. Crucially, this is also substantially more than the factory 4.0-litre RS, which peaks at only 30Nm more than the 3.8 with 460Nm at 5,750rpm.

Subjectively, the SharkWerks 4.1-litre RS feels quite different from any other tuned Porsche GT3-based road car I have driven before or since. Where the factory 997.2 GT3 RS with its single-mass flywheel revs quickly and smoothly to its redline, and the 4.0 is more of the same but with a bigger punch, the SharkWerks 4.1 feels like a 4.0 on steroids, coupled with similar aspects of the new 991 GT3's even higher-revving motor.

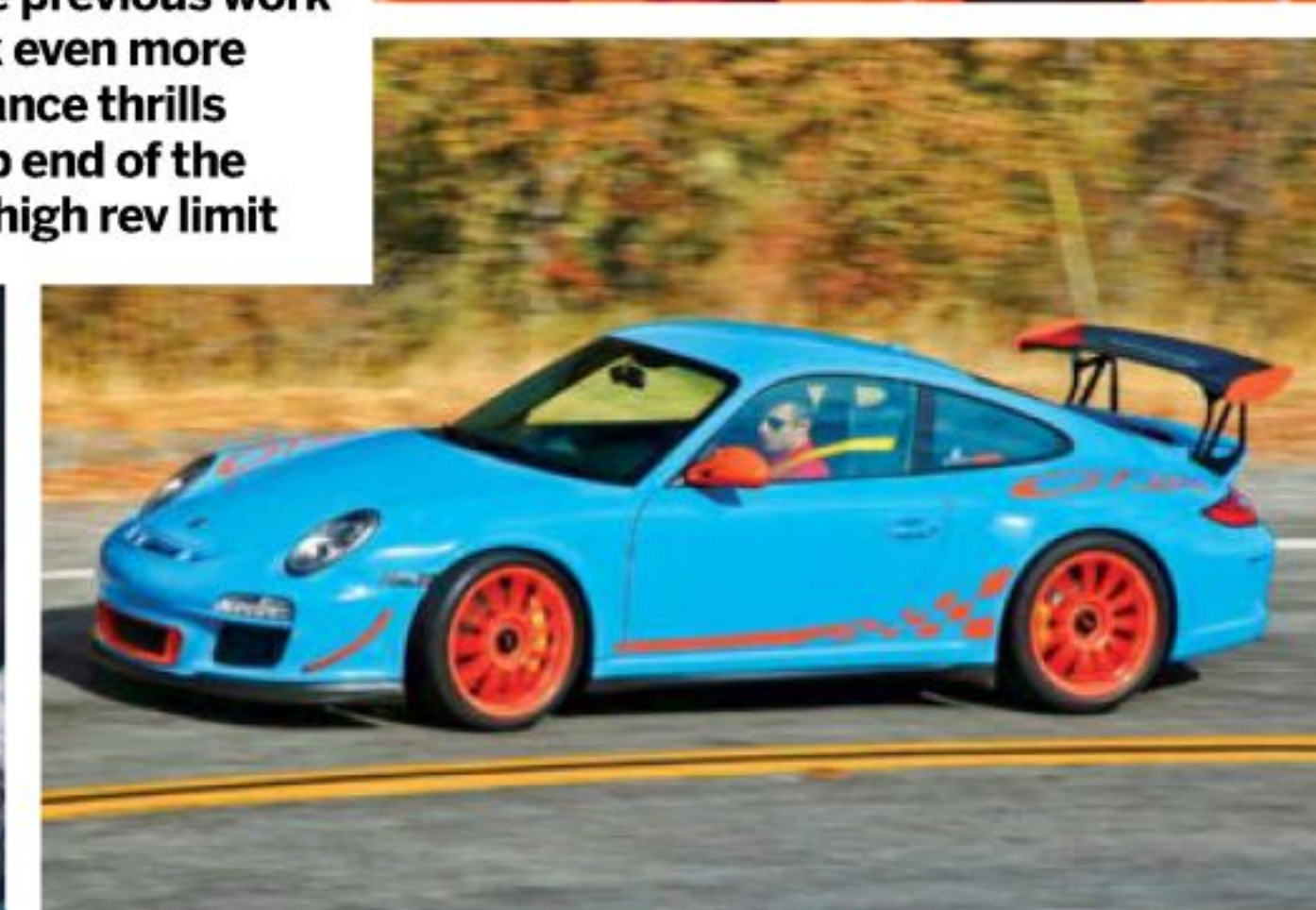
Revving fast and hard is not the only characteristic to be worthy of note here. While the factory 3.8 and 4.0-litre Rennsports produce more and more power as they head for their respective redlines, there is a fundamental difference in the way the SharkWerks motor answers the throttle, which makes this big engine all the more enticing. Where both factory motors release their power in a fairly linear fashion with rising engine speed, from around 4,000rpm upwards the SharkWerks 4.1 feels like raw energy is trying

to force its way out of the motor. This is not felt as a surge akin to a traditional turbocharged motor, but rather as with a greater eagerness to rev at the top end, and one that suitably complements its significantly stronger low-end grunt. Alex later told me this is a direct result of the near-ideal bore and stroke ratio of the motor and the perfect balancing work carried out on all the engine's reciprocating components. Incidentally, this bore and stroke relationship is the main reason why other combinations such as the longer-stroke 4.3 variant simply did not make the cut. This was proven on a recent trip to Germany, where I found myself at the wheel of a tuned 4.3-litre GT3 RS: the engine simply failed to deliver the power, torque and free-revving character of the SharkWerks 4.1. Certainly then, the new components added to the GT3 RS by Alex and his SharkWerks team seem to have created a synergetic confluence of positives that stack up in the 4.1's favour.

The 4.1-litre motor is a joint development between John Bray at Evolution Motorsport (EVOMS) and SharkWerks' resident engine guru, James Hendry. With the bore staying at 104.5mm, the stroke is changed from the familiar 76.4mm to 80.44mm. The all-new crankshaft is machined from a solid billet of 4340 high-alloy-content steel, with 12 radically profiled counterweights knife-edged to reduce hydraulic drag in the oil pan. This is lightened and dynamically balanced. It has an ➔



Tweaks to the intake and exhaust of the SharkWerks GT3 RS 4.1 this year have built on extensive previous work to unlock even more performance thrills at the top end of the engine's high rev limit



<b>Model</b>	<b>SharkWerks 997 GT3 RS 4.1</b>
<b>Year</b>	<b>2011</b>
<b>Engine</b>	
Capacity	4,150cc
Compression ratio	13.1:1
Maximum power	560hp @ 7,950rpm
Maximum torque	550Nm @ 5,300rpm
Transmission	Six-speed manual
<b>Suspension</b>	
Front	Bilstein Clubsport coilovers
Rear	Bilstein Clubsport coilovers
<b>Wheels &amp; tyres</b>	
Front	9x19-inch forgeline ga1r; 245/35/19 tyres
Rear	12x19 forgeline ga1r; 325/30/19 pilot sport cup Michelin
<b>Dimensions</b>	
Length	4,427mm
Width	1,808mm
Weight	1,344kg
<b>Performance</b>	
0-62mph	3.6 secs
Top speed	Not tested

“The 4.1 is deeply  
impressive, oozing  
**power** and **torque**  
everywhere”







Three years after its delivery from the factory as a standard-specification 997.2 GT3 RS, the SharkWerks 4.1 represents the pinnacle of the naturally-aspirated flat six engine

Omicron surface hardening finish to 2.0 microns, and also features a Multi-Rate rod journal oiling system. The basic crank without its gear weighs about 0.25 kilograms less than the stock item, but is even stronger in tensile strength terms and good for 9,500rpm. The main bearings are OE Porsche, while the bespoke con-rod bearings are smaller than stock, and made from a harder material to handle the higher loadings.

Meanwhile, the teflon-coated pistons come from a European manufacturer. Their skirts are almost the same length as the stock ones, but the domes are to EVOMS' own specification. The wrist pins are titanium, and the three oil control rings are also specific for these pistons. Despite being larger, each piston/wrist pin combination saves 20 grams over the stock 3.8 items. With a bore size of 104.5mm, EVOMS were right on the edge of what is possible with this crankcase. The new pistons sit in specially upgraded iron liners in the crankcase too.

The connecting rods are very strong steel alloy rod in their famous H-section design that is almost as light as the OE titanium rod. Titanium rods are classified as maintenance parts, as they can stretch over time and use, which isn't a problem in a race engine that's being rebuilt all the time, but is the last thing a client needs in a street-friendly engine.

And that was how things were when I first drove the car a year ago. With the 4.1-litre engine's internals completely sorted, extracting its full potential was now down to fine-tuning the intake, exhaust and ECU software. Alex told me that he was waiting on a new carbon-fibre airbox that could flow around 60 per cent more air than the factory 3.8 RS unit. While the factory 4.0-litre airbox would do the trick, the cost of this larger-volume hand-laid carbon airbox, housing a pair of high-flow conical

air filters, was prohibitive. Fortunately though, one of SharkWerks' suppliers in Germany had begun to manufacture a similar unit for a lot less, and this was shipped to California and duly fitted.

At the other end of the 4.1-litre motor, it was clear that exhaust gas extraction would benefit from a header system with slightly larger-diameter pipes. Once this was in place, a final dyno session to map the ignition and fuel curves to make full use of the better breathing rounded things off.

## 997 GT3 RS 4.0 vs SharkWerks 4.1

On paper and in the real world, the GT3 RS 4.0 represents the pinnacle of the factory 997 range. However, unlike the standard GT3, which always felt like a work in progress, the RS 3.8 is so accomplished that if you never drove the 4.0 you simply would not miss it.

You need a fast road or a race track to separate the 3.8 from the 4.0, but the significant extra outlay Porsche asked for their ultimate 4.0 underlines the law of diminishing returns. If you already own an RS 4.0, its rocketing value justifies your purchase, but if its value reaches silly money, dare you then drive it? However, cars are about driving, and the SharkWerks 4.1 utterly

annihilates the RS 4.0 in terms of power, torque, response and its willingness to rev. Importantly, the SharkWerks engine build also removes the inherent weak spots built into the Porsche motor by penny-pinching accountants, so the uprated motor should also be more robust to even the most spirited driver over the long haul.

If you have a 997 GT3 or GT3 RS 3.8 and want the ultimate driving machine, the answer therefore is not the rapidly-appreciating RS 4.0. The driver's option should be the SharkWerks 4.1-litre conversion, which is literally all things to all men. It is simply the best naturally aspirated 997 engine conversion you can buy, bar none.





In the interim, Alex also fitted lighter and better-looking Forgeline alloy wheels, and uprated the suspension by replacing the PASM with the first Bilstein Clubsport suspension kit to reach the US. This makes the front end feel even more secure without damaging the ride quality.

My drive that day in 2013 left a deep impression that did not fade with time, so when Alex mentioned this autumn that the new intake and exhaust were in place and the dyno numbers were spectacular (560hp and 550Nm of torque), I simply couldn't wait to get back behind the wheel of the SharkWerks RS 4.1 again.

Getting straight out of the international terminal at San Francisco airport and into the hot seat of this Riviera blue GT3 RS is as good as it gets. Thanks to my previous experiences with the car, I felt at home within seconds. Heading for our familiar test roads, I noticed that with the new larger-volume airbox and headers in place, the engine breathes noticeably better at higher crank revolutions.

While it picked up revs rapidly before, it did feel as if the 4.1's lung capacity was running out past 7,000rpm on the way to 7,950rpm, where peak power is produced. This is no longer the case, and the last 950rpm is now covered more rapidly and with more gusto, as all the mechanical elements now line up to deliver optimum performance.

The 4.1's 560hp and 550Nm compare very favourably to even the forced-induction power of the 997.2 Turbo's figures of 500bhp and 650Nm of torque. This is especially so in terms of power-to-weight ratio, since the stock GT3 RS 3.8 starts life some 200 kilograms lighter than the Turbo. However, the more telling comparison is against the standard GT3 RS 3.8, the starting point of this car, and its 4.0-litre brother, whose value has rocketed skywards in the past year. The SharkWerks RS 4.1's output is 110bhp up from the standard 450bhp 3.8-litre RS motor, with torque increased by an astonishing 122Nm. That also means a 60bhp and 92Nm gain over the RS 4.0.

Alex informs me that the SharkWerks 4.1 has now reached its full potential, and so this tuned RS in 2015-specification also represents the finished article. This final stage of the 4.1-litre flat six clearly highlights the inherent potential that is on show in Hans Metzger's redoubtable GT1 engine, and just how far you can take this motor if you are willing to spend the kind of money that would make the heads of accountants at Porsche spin at high speed.

Despite the much greater power and torque of the larger displacement flat-six, the chassis of the SharkWerks 4.1 has also been developed in lock-step with its motor. Unbelievably, despite the abundance of torque available throughout the rev range, the RS 4.1 almost never has traction problems – even when being caned on twisty mountain roads. This superb overall balance speaks volumes for the best and most exciting tuned 997 GT3 RS I have ever driven. **911**

# INDEPENDENT GENES

Customer motorsport has been in the 911's blood for decades as we delve into the history of Kremer's Porsche Cup contender

Written by **Josh Barnett** Photography by **Andrew Tipping**





**W**hen appraising Porsche's motorsport efforts, it is often easy to focus purely on the achievements of the works teams. After all, such famous successes as the outright victory at the Targa Florio in 1973, the famous 1998 24 Hours of Le Mans triumph and most recently, a GTLM win at the 24 Hours of Daytona last January were all secured by factory 911 teams based predominantly out of Weissach, the beating heart of Porsche's racing department.

Yet as prominent as the various factory squad incarnations have been over Porsche's storied competition history, customer motorsport has always played a key role at the centre of Stuttgart's racing efforts, especially with the myriad generations of Porsche 911.

The seminal sports car has long been the track weapon of choice for privateers wishing to compete in the world's biggest races and rallies, not just making the motorsport division at Weissach a sound business proposition, but also helping to turn the 911 platform into one of the most successful racing cars ever built, with 100 class victories at Le Mans alone. In fact, the neinefer's first appearance at La Sarthe didn't come in the hands of a factory team.

Porsche System Engineering (as the race team was known during the mid-Sixties), was too busy taking the fight to the mighty Ford and their dominant GT40 in 1966. With five 906 prototypes on the grid that year, Porsche's official team was at capacity. Instead a sole 911S, then only a few months old, was entered by two Frenchmen: Jacques Dewe and Jean Kerguen.

The prototype programme was still Weissach's primary focus as the Seventies dawned. But the 911's popularity was growing rapidly among a number of privateers all who wanted to carry the Porsche brand in the GT ranks. The support from the numerous independent outfits had not

gone unnoticed though by Ferry Porsche himself who, in 1970, created the idea of a Porsche Cup, a competition where non-works drivers could compete to see who was the best privateer.

Rather than a standalone series, the Porsche Cup saw every driver awarded points for each race they did at the wheel of a privately entered Porsche. Using a coefficient system, a win at major events (such as Le Mans or Daytona) are worth more than a victory in a national GT race, however points can be accrued in any series officially recognised by the FIA.

Gijs van Lennep was the inaugural recipient in 1970, with the Dutchman later going on to win at Le Mans in 1971 with the works team (as well as the aforementioned Targa Florio victory in 1973). He has since been joined by the likes of Stephané Ortelli and our very own columnist, Nick Tandy, who were part of the 1998 Le Mans and 2014 Daytona winning factory crews respectively.

Scanning the list of Porsche Cup winners over the last 45 years is a definitive Yellow Pages of racing legends, with drivers such as the late Bob Wollek, John Fitzpatrick and Franz Konrad all helping to carve their name in Weissach history thanks to multiple wins in the competition – Wollek has a total of seven Porsche Cup triumphs



# Modified & Motorsport

<b>Model Year</b>	<b>Carrera RSR</b> 1974
<b>Engine Capacity</b>	2,994cc
<b>Compression ratio</b>	10.3:1
<b>Maximum power</b>	330bhp @ 7,500rpm
<b>Maximum torque</b>	284Nm @ 4,800rpm
<b>Transmission</b>	Five-speed manual
<b>Suspension</b>	
<b>Front</b>	MacPherson struts with lower wishbones, hydraulic dampers with coilover springs, longitudinal torsion bar, anti-roll bar
<b>Rear</b>	Semi trailing arms with transverse torsion bars, hydraulic dampers with coilover springs, anti-roll bar
<b>Wheels &amp; tyres</b>	
<b>Front</b>	10x15-inch magnesium alloys; 10.5/23.0-15 slick tyres
<b>Rear</b>	13x15-inch magnesium alloys; 13.0/25.0-15 slick tyres
<b>Brakes</b>	
<b>Front</b>	300mm drilled and vented discs; 917 43mm-piston callipers
<b>Rear</b>	300mm drilled and vented discs; 917 38mm-piston callipers
<b>Dimensions</b>	
<b>Length</b>	4,128mm
<b>Width</b>	1,651mm
<b>Weight</b>	900kg
<b>Performance</b>	
<b>0-62mph</b>	5.0sec (approx, depending on gearing)
<b>Top speed</b>	180mph (approx, depending on gearing and set-up)



Such was their expertise with Porsche race machinery, it wasn't unusual for Kremer to assemble 911 RSRs to factory spec themselves



## Kremer's Porsche Cup successes

- 1990:** Bernd Schneider (Porsche 962 CK6)
- 1987:** Volker Weidler (Porsche 962)
- 1981:** Bob Wollek (Porsche 935)
- 1979:** Klaus Ludwig (Porsche 935 K3)
- 1978:** Bob Wollek (Porsche 935 & Porsche 908/03 Turbo)
- 1977:** Bob Wollek (Porsche 935/77)
- 1976:** Bob Wollek (Porsche 934/5 & Porsche 908/03)
- 1974:** John Fitzpatrick (Porsche 911 Carrera 3.0 RSR)
- 1973:** Clemens Schickentanz (Porsche 911 Carrera 2.8 RSR)
- 1972:** John Fitzpatrick (Porsche 911S)
- 1971:** Erwin Kremer (Porsche 911S)



to his name. However, among the illustrious list of racers, it is hard to ignore the prevalence of two team names: Joest, who dominated the competition in the Eighties and now runs Audi's FIA WEC programme, and Kremer.

Founded in 1962 by brothers Erwin and Manfred Kremer, Kremer Racing's headquarters in Cologne saw the team initially campaign Fords in the European Touring Car Championship – the Blue Oval famously basing its German plant in the industrial city. The partnership wasn't without success, with Erwin securing the ETCC title in 1968. However, it didn't take long for Kremer to become associated with a truly home-grown brand.

In 1971, Kremer converted a series of 911s to S/T specification; the psychedelically liveried cars have since been the inspiration for many long-nose conversions. At the wheel of one S/T, Erwin secured the Porsche Cup in 1971, setting in motion an intense period of domination for the Cologne squad that was cemented two years later with the heralding of the RSR era.

As you will have read in issue 115, after the success of the 2.8 RSR, the 1974 911 Carrera RSR purely became the preserve of privateer outfits as the Porsche works team turned its attentions to turbocharging. While Georg Loos' Gelo Racing RSR tasted much success in 1974, it was pushed all the way by Kremer Racing's similar examples, to the point that if a Gelo Racing 911 wasn't heading the field, it was extremely likely a Kremer car would be maintaining Porsche's honour instead.

Other than van Lennep's triumph in 1970 for a team formed by Finnish importer Antti Arno

Wihuri, Kremer only failed to secure the Porsche Cup on one other occasion during the Seventies. That year was 1975, when Claude Haldi's exploits in a Toblerone-liveried 3.0 RSR secured the Swiss driver the title and Kremer's expansive line-up of 911s included the car before you.

By the mid-Seventies, and with four Porsche Cups to their name already, the Kremer brothers were the go-to men if you wanted a fast and reliable Porsche race car. Erwin and Manfred had swiftly built reputations that preceded them as their RSRs became the car to have during the decade's halfway point. For the 1975 season, Cees Siewertsen – who had dominated the 1974 Dutch GT Championship in another Carrera 3.0 RSR – contracted Kremer to build him a new car with which the Dutchman aimed to step up to the more competitive DRM series in Germany.

Kremer's knowledge of the RSR platform meant that, rather than buying a ready-to-go 911 from the factory, when Siewertsen's request came through, a bare body shell was despatched to Cologne where Erwin and Manfred's team worked through the winter of 1974 to build a brand-new 1975-specification Porsche 911 Carrera RSR. The result was chassis no. 005 0004 (the denomination changing from Porsche's official 911 460 XXXX coding).

Although 1975 would prove a greater challenge for Siewertsen, the Dutchman was still able to start the season in style, coming home third in April's Jim Clark Rennen memorial race at the Hockenheimring. After not starting the famous Eifelrennen at the Nürburgring, Siewertsen

took chassis 005 0004 to sixth – again at Hockenheim – before dipping into the European GT Championship at Norisring on 29 June.

After a win in July's GT race at the Diepholz Airfield circuit, August would scupper any chances Siewertsen had of winning his second title in a row. The month started with a lowly 13th place finish at the Nürburgring before a DNF at Kassel-Calden extinguished his DRM hopes.

A return to happier hunting grounds at Hockenheim saw the Dutchman finish eighth on the last day of the month, but chassis no. 005 0004 would have to wait until 9 November for its next podium visit. However, when it eventually came, it came in considerable style. With one final race at the Hockenheimring, Siewertsen rounded off his season in style with victory around the flat-out blast through the forests near to Porsche's Stuttgart home.

Siewertsen's relative lack of success that year would not be enough to place him at the sharp end of the Porsche Cup reckoning come December. However, along with his 1974 Dutch title-winning RSR, he had provided one us with a lesser-known iconic livery. The mid-blue colour scheme with white 'stitching' is instantly memorable and has led to chassis no. 005 0004 becoming affectionately known as the Wallys Jeans RSR by most Porsche racing aficionados.

For 1976, the car was sold on to Heribert Asselborn as Siewertsen returned to Holland to taste success again, this time in a turbocharged 934. Asselborn's brief tenure with no. 005 0004 brought modest success in Germany – third at



It may have magnesium wheels and a highly tuned 3.0-litre flat six but it is the iconic livery that the Wallys Jeans Porsche RSR is famous for



the DRM's Nürburgring 300-kilometre race being the standout result – but by the end of the season the car was back with Kremer Racing before Karl-Josef Römer took ownership for one race at the Nordshleife in April 1977.

From here, the car's history becomes somewhat murky. However, after the dawn of the new millennium, the Wallys Jeans RSR resurfaced in the hands of historic racer Michael Foeveny. Age had not been kind to chassis 005 0004, though. The car had, at some point, travelled to Iceland where it was put through its paces as a rallycross car. With values of 3.0 RSRs now well north of £1.5m, such treatment seems sacrilegious, yet during the Eighties these RSRs were simply out-dated racers.

After a comprehensive restoration carried out in a joint effort by crack classic Porsche racing experts Freisinger Motorsport and Roitmayer in 2003, the Wallys Jeans RSR was returned to its former denim glories.

Yet rather than simply becoming a museum piece, a Historic Technical Passport (HTP) was sought from the FIA, allowing the car to race in international race meetings such as the Le Mans

Classic event, where the car competed in both 2004 and 2006.

In 2013, the Wallys Jeans RSR found its way into the hands of US Porsche collectors Canepa, where it briefly found itself alongside the Gelo Racing 3.0 RSR that no. 005 0004 lined up against at the Norisring on 29 June 1975. On that occasion, the heavily works-supported car, driven by John Fitzpatrick – a Porsche Cup winner for Kremer in 1972 – would come out on top, winning the DRM race around Nuremburg's streets while Siewertsen could only managed sixth.

Unlike Georg Loos' similar cars, the Wallys Jeans Carrera 3.0 RSR didn't set the world on fire with its racing results during its career in the Seventies. Yet, its evocative livery has endured the ages – and the harsh climate of Iceland – and the car now stands as a symbol of Kremer Racing's heyday. After losing out on the Porsche Cup in 1975, the Cologne squad regained its privateer's crown in 1976, before successfully defending it in '77, '78 and '79 (helping Bob Wollek to his first trio of triumphs).

From building their own 3.0-litre RSRs, Kremer switched their attentions to the flame-

spitting 935 during the latter part of the decade. Their experiences developing a successful 911 programme would set them in good stead as they developed their own aerodynamic packages alongside nearby DP Motorsport for Porsche's turbocharged monster, culminating in an overall triumph at the 1979 24 Hours of Le Mans, the ultimate success for an independent racing team.

Fast-forward to the close of last year and another privateer Porsche entry, this time on the other side of the Atlantic, proved that independent efforts can still reap major rewards in international endurance racing. Like Kremer, Team Falken has become an RSR stalwart during its years racing in the ALMS and Tudor USCC. Victory at Petit Le Mans last October was just rewards after a challenging season that saw Derrick Walker's squad become the first team to run a customer 991 RSR.

Although the factory team will continue to take most of the limelight in 2015, Porsche's privateers are still proving the 911 can be successful outside of Weissach's hands, something that Kremer first displayed to the world during its now-legendary Seventies supremacy. **911**



“We drove  
everything as  
fast as we could”



# Behind the RS

## Three legends key to RS evolution

### 160 Sabine Schmitz

Up close and personal with the Nürburgring favourite who uses a 911 Rennsport when not in her GT3 Cup car

### 172 Walter Rohrl

Herr Rohrl has piloted many 911s around many laps of most of the world's circuits. Here, he reveals his greatest moments

### 166 Roland Kussmaul

The enigmatic creator of the 964 RS speaks about building a Rennsport and racing Porsches in the desert









# The Queen of racing

The face of the Nürburgring and unlikely celebrity heroine Sabine Schmitz talks about her 997 GT3 RS and life on the iconic Nordschleife

Written by **Phil Royle**  
Photography by **Frikadelli Racing**

**S**abine Schmitz, known to many as 'Speedbee' or 'the 'Ring Queen', is a motorsporting heroine. A respected race ace and TV celebrity with a passion for Porsche and the Nürburgring, the former 'Ring Taxi' driver has certainly earned her cult Nordschleife racer status, and enjoys a loyal fan base.

The charming, charismatic and energetic 43-year-old – who's forever smiling, laughing or giggling in interview – was born in the pretty Eifel town of Adenau, with the infamous Nürburgring Nordschleife wrapped closely around her.

Now, Sabine is synonymous with Nürburgring folklore, taking in more than 30,000 laps of the famous circuit, most recently with her Frikadelli Racing 911 GT3 R in the VLN championship. But what else can we learn from one of the greatest ambassadors of the iconic 13-mile course? Phil Royle caught up with the lady herself to find out...

**Your association with the Nürburgring Nordschleife goes back to your childhood. Can you explain your early associations with the 'Ring?**

My family ran the now infamous 'Steak on a hot stone, please' Hotel am Tiergarten in Nürburg village, within earshot of the Döttinger-Höhe straight. It was so great to meet all the F1, racing and motorcycle stars in our house and restaurant. I went to school in Adenau, and every evening there was always loads of work to do in the kitchen or behind the bar... some days I fell asleep in school!

## SABINE SCHMITZ PROFILE

- **Age:** 43
- **Height:** 5'7"
- **Place of birth:** Adenau, Germany
- **Hobbies & interests:** Painting, cooking and tending to her pig farm
- **Most memorable racing moment:** Beating VW to a second 24-hour race win
- **Racing hero:** Jack Brabham
- **First race car:** Volkswagen Polo
- **Favourite circuit:** Nürburgring
- **Current racing team:** Frikadelli Racing
- **Current racing car:** 2013 GT3 R

### What persuaded you to have a go on the track for yourself?

Well, after being exposed to all these great motorsport people and their stories, I couldn't wait for a driving license to get out on the Nordschleife. Eventually I took my mum's BMW to do some laps without a license! It was amazing, and I decided to get into motorsports from that very moment. Plus, my grandma was always pushing me to the supermarket and hairdresser via the Nordschleife.

### What was your first race on the circuit?

It was with my first car, a Volkswagen Polo. I even won the race in my class!

### Your break in racing came at the start of the Nineties...

Yes, from 1990 to 1992 I raced in the Ford Fiesta Mixed Cup and came third in my first year and second in my second season, before winning the championship in season three. From 1993 to 1999, I was a BMW works driver, and in 1996 and 1997 we were overall winners of the famous 24-hour event at the Nürburgring. In 1998 I was winner of the VLN championship with the Scheid Motorsport BMW



The Nordschleife has been both a home and hunting ground for Schmitz



“I couldn’t wait to get on the track, so I took my mum’s BMW without a license!”



Schmitz has gone from racing ace to media darling

M3. In total I have had 50 wins and nine overall championship victories on the Nordschleife. Since 2005, I have been racing with my boyfriend, Klaus Abbelen, in a Porsche (Cup, RSR, R) for the VLN Championship, and we came third overall in the 24-hour race in 2008.

#### Speaking of Porsche, when did you first race a 911?

It was in 2005. I was in a Carrera Cup car and came 4th overall in the VLN. It was fabulous.

#### Your love of Porsche 911s is well documented. Explain your affection behind them.

It’s their drive on the rear wheels. There is nothing like it. Porsche has never really changed the 911: it’s such an authentic race car. To get the best from a 911 race car, you have to drive it with a little understeer into the corner and then release full throttle before the apex to fly out of the corner. It is not like most other race cars. The older 911s were bad to race; if you pushed them out of the corner, the weight went to the rear and the car started bumping a lot. Now they are settled, stiffer and, of course, a lot faster.

#### You raced in a 911 for 2012...

I race with Klaus as part of Team Frikadelli in a 2012 GT3 R. Last year in VLN, we had two pole positions, came second twice and third twice. It was not a



## SCHMITZ ON...

#### Her hobbies & interests

“I love my jobs, but also my ranch with horses, pigs and chickens, and I like painting and cooking.”

#### The cars in her garage

“I have a Ford Ranger Wildtrak pickup truck, a Porsche GT3 RS and a John Deere tractor! And, of course, the GT3R race car in the workshop.”

#### What’s in store for 2015

“The main plan is to build the log house in our garden. And, of course, to race and do more TV.”

#### Being labelled as ‘The Stig’

“Well, I’ve got the suit...”

#### Her racing and media life to date

“I’m very lucky to do so much media work, but I want to do even more!”

great season because of tyre problems, but we were the best Porsche in the 24-hour race, finishing 6th. We will race the new 2013 GT3 R next year, in the VLN Championship and Nürburgring 24 Hour, of course. The 997 was big fun to drive, I loved it! But hopefully the downforce is a little better on the new car... I’d like more of this.

#### But you got the fastest lap time of 8:08 in the car during a VLN race!

Yes! But the car can still be improved.

#### You have a 997 GT3 RS. Is it your favourite 911 for the road?

Yes, it doesn’t break down and is well balanced. Although the Turbos are very fast in a straight line, the rear is too soft, so it doesn’t handle as nicely.

#### Going back to the Nürburgring, you came 3rd overall in the 24-hour race of 2008. What was that like?

It was the first big victory with Klaus in our own car. It was so great, and we had a big party with our team and our friends after that.

#### What is the secret of racing in the 24-Hour?

You have to stay cool and try not to crash! If you make a mistake – choosing the wrong tyres, for example – don’t put yourself under pressure. For

“On the podium  
the guys can get  
a bit upset!”





Sabine's class on the famous track has turned her into an international celebrity

shorter races it's the same, with just a little more risk allowed.

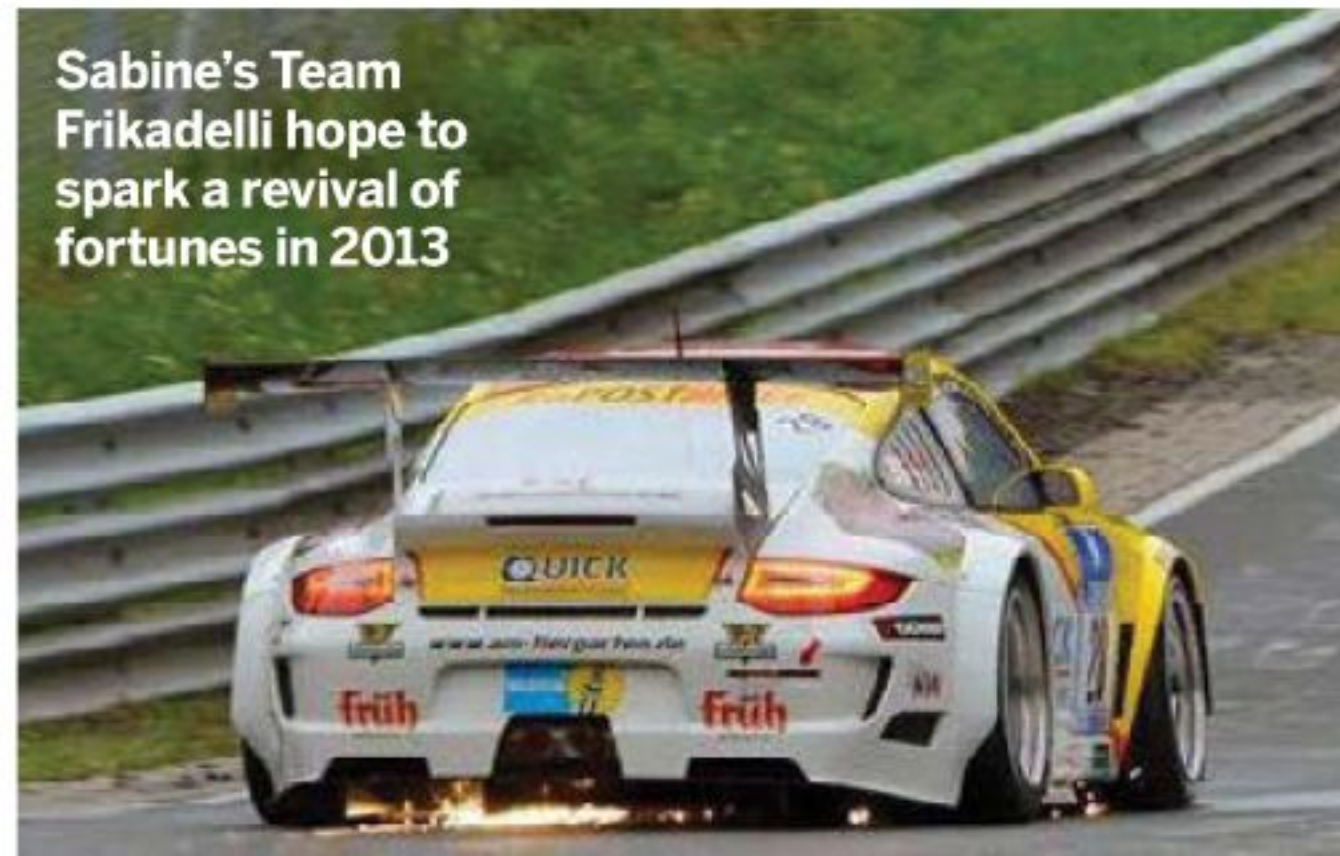
**What does the 'Green Hell' (Jackie Stewart's nickname for the Nürburgring) mean to you?**

It's the most dangerous fun you can get. You either love it or you hate it; there is nothing in between. I have some great memories from the course; some good and some not so good. One of the best was the second 24-hour race win – it was a big fight over hours with the VW works team. I finally made it on rain tyres in sunny and thunderstorm conditions. The worst was my crash after a broken part on the left rear in 2011. It can be scary out there, like when you drive on slicks into the rain. I once span off at 200km/h in a very brave corner, luckily without any damage. I do really like the fast sections of the course, though, like Schwedenkreuz and Fuchsröhre.

**What advice can you pass on to other enthusiasts of the Nürburgring?**

In the wet, stay off the racing line, but not everywhere. Drive softly, not aggressively, and take wide lines. And in the dry, think at least three corners in front in order to get the speed on the long straights. If you're just starting, then take the slowest car you can in order to have sufficient time to look at the track and learn it.

Sabine's Team Frikadelli hope to spark a revival of fortunes in 2013



It takes 50 laps to start to learn the track and, in the wet, maybe 500.

**You were also famous for running the BMW 'Ring Taxi'. What was that like?**

I ran this for BMW from 1993 to 2011. It was so very funny – to meet different people from countries around the world was great. I actually let one of my own racing heroes, Jack Brabham, drive the BMW Ring Taxi, but not a lot of people know that!

**What has it been like being a fast lady in a predominantly man's world?**

It doesn't matter in the race, but on the podium the guys can get a bit upset! A professional driver once said, "I'll drive on my roof into the pits before Sabine overtakes me," but I promise you he didn't!

**How do you think you are viewed by others in the motorsport world?**

I don't think about it. I'm just doing my job.

**Your love affair with racing has led you to a great TV career in Germany and the UK...**

I've done some documentaries about myself, including my horses, my pigs and racing. I just did *Fifth Gear* with Tiff Needell at Cadwell Park. I'm also with the live shows of *Top Gear* in GB, South Africa and Australia, and I was a Mentor at Silverstone working for Nissan together with [German rapper] Smudo and Formula One racer Nick Heidfeld. Very random!

**Away from racing and the television cameras, how do you pass the time?**

Well I run a 'sportcar hotel' (the Frikadelli Racing Barweiler, Horse Hotel & Guesthouse) with Klaus, and we're currently in Canada creating a log house for our ranch back home in Germany. It will be a new guest house. I'm also a trained pilot, so I enjoy flying my helicopter of course.

**What racing goals would you like to achieve in the future?**

I would simply love to win the 24-hour race for a third time, as it's at my home. We will have to wait and see if I can do it! **911**



# RK Roland Kussmaul

For many years the éminence grise of Porsche's motorsport department, the retired great talks to Total 911 about competition success and being labelled the father of the GT3

Written by **Kieron Fennelly**  
Photography by **Kieron Fennelly**  
and **Porsche AG**



It's not often that a retired gentleman proves hard to track down. Then again, it's not every day we're trying to speak with Roland Kussmaul. After officially leaving Porsche at the end of 2008, our attempts to meet him the following spring

were thwarted by his busy schedule. Recently, we were luckier: despite his programme being just as full, Roland found time to meet us at his home in the charming village of Eberdingen, a convenient five miles from Weissach.

Here, Roland explains why at the age of 69 he is travelling as much as he ever was. Essentially this most dynamic of pensioners – he can still play a mean three sets on the tennis court – has been at the heart of Porsche's American Le Mans programme, as well as helping with the independent Lizard team of late. Such commitment entailed 13 trips to the US in eight months in 2012. He also acts as a consultant to Porsche Motorsport with regular meetings at Weissach, and retains a close connection with

Olaf Manthey, long a 'semi-official' Porsche works team and whose GT3s failed to win the 2012 Nürburgring 24 hours for only the first time in eight years.

**Roland, how did you come to join Porsche and what were your first impressions?**

I graduated in engineering from Stuttgart University, and a lot of us went to Porsche at that time [the late Sixties]. It was an exciting period;

Ferdinand Piëch was the technical director and he really knew what he wanted. He was driving Porsche Motorsport to the very top with an energy that we could all feel. He would demand a solution to a problem, and would tell us we had five days to come up with it. That's how he always got 110 per cent from his people.

**You arrived at Porsche as it was ramping up to win Le Mans, and it was still a small family run company. Although you were instrumental in the development of the 911 and a key figure in the competition department, histories of Porsche never seem to mention you in this early period. What was your role at that time?**

My degree was in mechanical engineering, and I was selected to work on the Leopard Tank programme. Porsche had a long tradition of building military vehicles, and though I was based at Weissach, I wasn't in the competition department. I worked on several evolutions of the Leopard, which involved extensive driving trials but, of course, these were government contracts and never designed to attract publicity!

## KEY FACTS

- Born 27 September 1943.
- Graduate in Mechanical Engineering from Stuttgart University.
- First assigned to 'Leopard Tank' military program.
- Later led the Porsche works team to overall victory at the Dakar Rally, himself in a 911 Feuerwagen as a 'swift service man'.
- Credited with devising the 964 RS and Cup.
- Former head of the Porsche Performance Department, now a Porsche consultant.

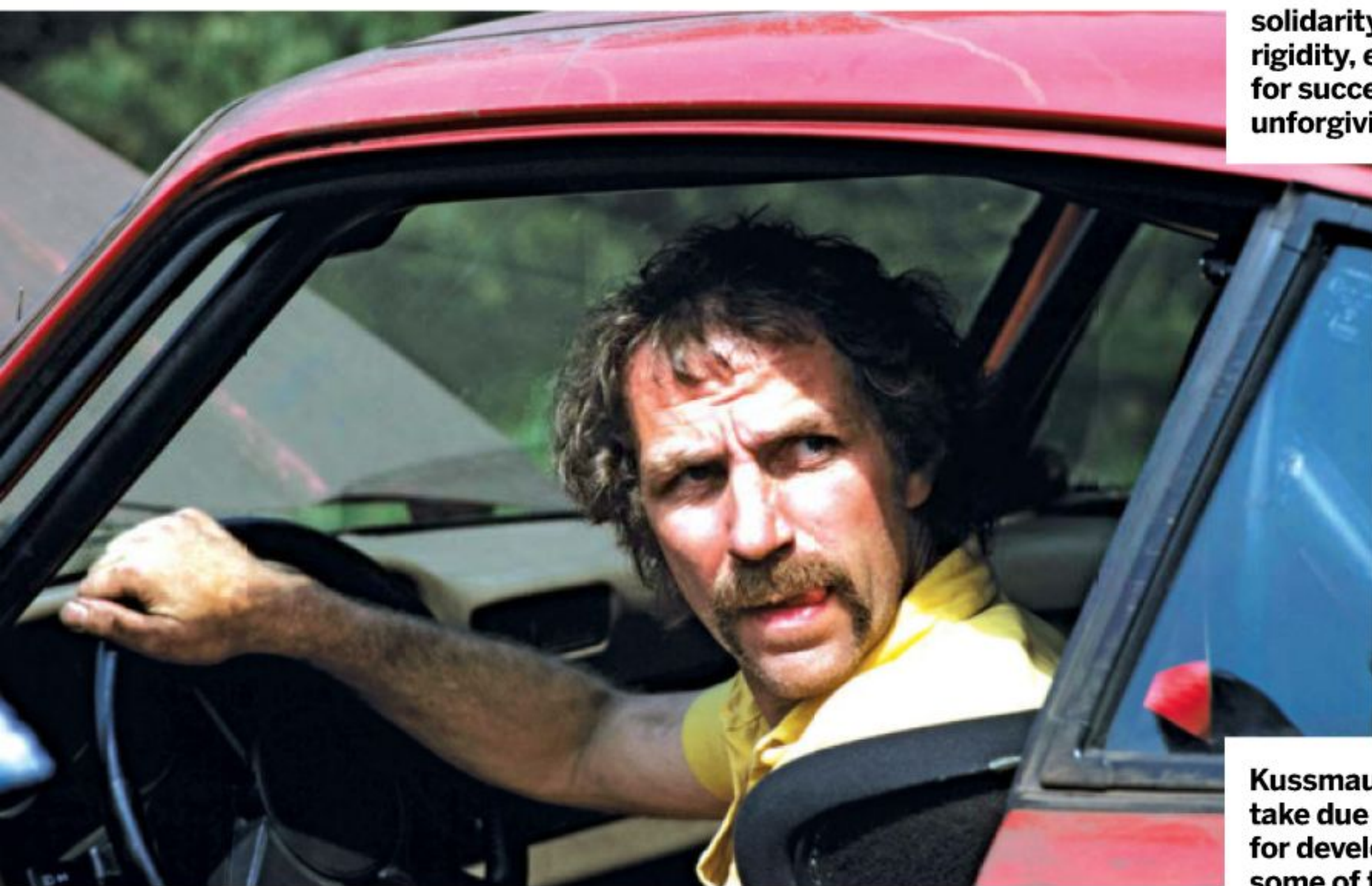




Kussmaul's career took in a wide variety of endurance events, including Le Mans and gruelling routes across Europe and Africa



Success at the African safari highlighted the 911's structural solidarity and rigidity, essential for success on such unforgiving terrain



Kussmaul can take due credit for developing some of the most decorated cars in the history of the 911, including the famous GT1





**But you soon moved into car development.**

In 1974, Peter Falk, the manager of the racing division, approached me. This was at a time when Porsche had reverted to supporting third-party teams rather than fielding its own. Falk asked for my help with the Kuehne & Nagel team. The international freight forwarder was sponsoring a brace of 911s in European rallies and encountering recurring difficulties with dampers and suspensions. Mr Falk selected me to liaise with the damper manufacturers. He had obviously seen me in the tank proving ground, and knew what my job was. Porsche was taking an increasing interest in its competitors, especially with the advent of the 924 and 928, and Mr Falk often asked me to evaluate Ferraris and other sports cars on the circuit at Weissach. So looking back, the damper project was my ticket to Porsche Motorsport. When Porsche decided to reintroduce its own works team in 1978, I was appointed service manager alongside Jürgen Barth, who was competitions manager.

**What was the thinking behind the new team?**

With the 911, Porsche had won virtually all the major rallies, and the object now was to win the Safari rally in Kenya. The Safari was an event where sheer structural strength rather than outright speed and power was what really counted. We still didn't win, but we learned a hell of a lot from it; Africa is nothing like a European rally, where you have the roadbook and service back up and off you go. The distances are vast, and you have to do endless reconnaissance and be able to repair the car yourselves. Above all, you have to be able to understand the terrain.

**You were the co-driver and navigator...**

Yes. Porsche had recruited Bjorn Waldegård, who won the 1969 and '70 Monte Carlo Rallies in 911s, so I co-drove with him. It was almost unimaginably different in those days: we had no electronic equipment at all, and my job was to monitor everything from landmarks and road surfaces to listening to the car like the flight engineer in a piston engine aircraft at every step. It was quite fantastic for a young guy like me to be sitting alongside a champion like Waldegård – an amazing experience. I learned a lot in a few months.

**Tell us about Waldegård's driving.**

Quite amazing! His technique defied description: roads were often extremely basic in Africa. A bridge

over a stream might consist of a couple of planks narrower than the car. Bjorn used to get the 911 over them by coming broadside so that the car was up on two wheels as he went over the planks – pure stunt driving! He'd also accelerate hard before a wide river crossing so that the 911 would hit the water and bounce literally like a pebble skimmed across a pond. We built up a big lead, but despite everything we had suspension problems – both 911s were slowed by this, and in the end we finished second and the other works car fourth.

**Porsche withdrew from rallies after that, yet only a few years later you found yourself driving in Dakar. How did that come about?**

When Peter Schutz became CEO in 1981, he saw that the 911 was Porsche's cash cow, and wanted to promote it rather than terminate it as Fuhrmann [Schutz's predecessor] had planned. So the Paris Dakar, which had been going since 1978, looked a good place to start, especially as not having won the Safari, Porsche still had unfinished business in Africa! So we got permission to enter the 1984 event in a 911 with huge ground clearance. People were derisive about our entry; the conventional approach to Dakar was a 4x4 vehicle, which was believed to be the only way to cope with the sand [Jacky Ickx won the 1983 event with a Mercedes Geländewagen]. But cars like Range Rovers or Mercedes G-Wagens were heavy and slow; we knew a great deal about off-road driving and African terrain, like how to traverse quickly along sand and water.

**What else was special about the Dakar 911, the 953?**

It had four-wheel drive, and we detuned the standard 3.2 engine by about 5bhp for reliability and it weighed barely 1,100kg; there was no question of service vans at every stage as in the Monte, so besides two works cars, a third, the so called 'Feuerwagen' (fire wagon) carried spares and could be cannibalised if necessary to keep the other two in contention. This time we pulled it off thanks to René Metge. I drove the Feuerwagen and even won two of the stages, though ultimately we didn't finish because we lost our way at a crucial stage. That taught me the importance of navigation and local knowledge. It's also why René was so good. In '85, I co-drove with him too. He spoke no German and I can't speak French, so we devised a kind of sign language and I learned to shout "Frein!" when

he needed to brake! He was a natural; he'd lived in Africa and had a nose for it. I remember how he surprised me when he braked massively from 200kph in the middle of the desert, though I hadn't said anything. He had seen a subtle change in the colour of the sand ahead. It was a shade darker, which meant it was wet and we would never have got out of it if we'd continued. He would get out of the car and check the ground on foot before deciding whether it was driveable. He could literally smell the damp before we got to it.

**You were involved with the 959 too.**

Group B appealed strongly to Schutz, who saw an ideal launch pad for the super Porsche, which was how he envisaged the 959. Peter Falk managed the Dakar project and Jürgen Barth and I took a 959 shell which we reinforced pretty thoroughly, then fitted a detuned version of the 2.1 turbocharged racing engine. The 959 Dakar version was a sensationally fast car; when we could get decent petrol it was so quick it could outstrip the camera helicopter trying to follow it across the desert! We still didn't win at first: Ickx crashed in 1985, but Metge won in '86. After that season the racing authorities deemed Group B too dangerous and Porsche withdrew from the rally scene.

**What was your next competition role?**

Porsche returned to sports car racing, and I was developing and testing the group C sports racer full time; Barth and I carried out final testing of the 77 customer 962s that Weissach built. I was also doing the testing of the F1 car [a project which promised much, but ultimately seemed to fizzle out as Porsche and Formula 1 drifted apart].

**That brings us neatly to the launch of the 964 and the RS version, which was essentially your design. How did this come about?**

As in 1981, it was a change at the top that started it. Helmuth Bott, who was technical director, was replaced by Ulrich Bez who had been at Porsche before, but arrived from BMW Tech [which designed the radical Z1]. Bez decided to replace the 944 in the Porsche Cup one marque series [effectively Porsche's shop window] with the 964, which was logical once the C2 version was launched. He turned to me, and I set about developing the chassis design that Barth and I had built for the SC RS to produce a Cup version of the 964 [This car and its road-going homologation version, of which only 2,000 were made, marks the beginning of Kussmaul's reputation as a demi-god among 911 enthusiasts].

**Was it true the engines were blueprinted?**

No. I simply selected engines off the production line that were showing above average horsepower.

“You need to understand you can't build a racecar by sticking to a 35-hour week”



“We could outstrip the camera helicopter trying to follow us across the desert!”

**There was a major stumbling block to the plans though as ultimately the 964 RS couldn't be sold in America...**

No, we never got type approval, though we did do a turbo version [the famous Turbo S Leichtbau], which won the IMSA championship over there in 1992 and '93.

**You are also behind all the subsequent Cup, RS and RSR 911s, the GT1 of Porsche's last Le Mans win and the GT3, the largest volume production racer in history. Is it fair to call you the father of the GT3?**

Well, I probably am, but at Porsche we have a huge advantage compared with other manufacturers in that we are able to build the race versions alongside the production GT3. Being under the same roof means homologation is so much more simple.

**But it still takes planning and commitment.**

It's the family effect, the tradition that goes back even before Piëch. You need to understand the car, you need to understand the rules and can't build a racecar by sticking to a 35-hour week; it needs absolute commitment. At Porsche there

was always this commitment. That's how we got things done.

**We've been admiring the 996 GT3 RS on your drive, Roland. What's in your garage?**

A 964RS. It's one of the original Cup cars which I returned to road specification by taking out the roll cage and replacing the interior. I'm also restoring one of the original ex works 914/6s which has the 210bhp 2.0-litre race engine. But don't think of me as an old tech die-hard; I think the latest PDK is fantastic! It's so reactive: you can go round the north curve at Weissach much faster than in the manual car. I believe advances like ABS are essential, too, but for me new cars generally tend to have too much functionality and that adds weight.

**Will the new GT3 have PDK then?**

[Smiling enigmatically] You'll just have to wait and see. What I can tell you is that with 450hp it is sensational to drive [As we say our goodbyes, he his climbing into his 996 GT3]. I'm going to pick up my mother in law. If I take the Passat, she complains I haven't brought a Porsche! It's all about family. Porsche, and family. **911**



Roland's 996 GT3 RS is part of an impressive personal collection of Porsches



Photographed by **Johnny Tipler**  
and **Annette Schlez**

Starring

**Röhrl**



Before it's launched, every new RS model gets the thumbs up from two-times former World Rally Champion and racing driver extraordinaire, Walter Röhrl. Taking time out with a rare 718/8 sports racer at Austria's Ennstal Classic rally, the German ace gave Total 911 the lowdown on some career highlights



Röhrl about to commence proceedings in his 1963 Porsche 718/8 at the Ennstal Rally in Gröbming, Austria

**Total 911: We saw you travelling sideways in a 911 every lap of the Nordschleife classic marathon at the Oldtimer, but what turned you on to Porsches in the beginning?**

Walter: Oh, I have to go right back. When I was ten-years old, my older brother was 20, and he owned a Porsche. It was a 356 SC Super 90. Of course, on weekends my parents said, "You must take your little brother with you". And so I was in the back of the 356. At this time my brother told me, "Listen, when you are 18-years old and you pass your test, wait until you can buy a good car. The only good car is a Porsche. Forget all the rest." So, even aged ten, I was Porsche minded. At 20-years old I bought a 356 C, and it was my first car. From that time onwards I've always owned a Porsche, even during all those years when I was driving for Fiat, Lancia, Opel or Audi.

**Your career took off in 1970 with an ex-East African Safari 911S belonging to Jürgen Barth. What was that like to drive?**

That was not an easy car to drive. I was using the throttle to steer the car. There's a lot of understeer, so you just have to lift off in the corner, and if it's in the right position it turns in, and then you have to be on the throttle.

**During the Seventies you drove for Ford, Fiat, Lancia, Opel and Audi. When did you next compete in a Porsche?**

I had a contract with Mercedes for 1981, but before the year started they closed their sports department. All of a sudden I had a contract but no car. Then Porsche said, "Now we are able to help you: you

have the money from Mercedes, you can have the car from us!" So I drove a 924 GTP prototype with Jürgen Barth at Le Mans and finished seventh. I won the 1,000km at Silverstone with Reinhold Jöst's 935, and also did the Nürburgring 1,000km with that car. I did the German Rally Championship in a Porsche 924 GTS and won six rounds, and at the end of the year I did the San Remo round of the World Rally Championship with a 911SC.

**When did you first start actually working for Porsche?**

In '92 I finished my work with Audi, and the next day Porsche were phoning, and they were saying, "listen, is it true that you stopped with Audi?" Yeah, yeah, I said. "Well, tomorrow you can start working for us as an official test driver for Porsche," they said, and that's the reason I have been nearly 20 years with Porsche, and of course over this time I've had fantastic work.

**Four years ago you drove me up a country lane near your home in Bavaria in your GT3 RS. Do you still have that car, and the 997 Turbo?**

Yes!

**...and your private car is that black 964 RS you had detailed in orange to match the GT3 RS?**

The 964 RS is the only private car that I own; I bought it in September 2006. Before that I had a 3.2 Carrera, but I was always looking for a special car, maybe a '89 Speedster, that's quite nice: the 3.2-litre engine is the best that Porsche ever made, in my opinion. The 964 RS is good value, too, compared with the '73 2.7 RS, which is so expensive that nobody can afford it, and even the 993 RS is quite expensive. At first people didn't like the 964 RS, because it was like a standard car with no special spoiler. In the beginning the price was okay, but as time went by that also rose. In 2006 I rang all the Porsche centres in Bavaria and said, "Look, if you hear something about a 964 RS, tell me." Then, amazingly, 80km from my home town they found this car. It had never been on a race track; just twiddling around.

**When do you use it?**

I only use it for fun, about three times a year with my wife. I'm completely crazy about cars, and if it's raining – or there are too many flies around – I don't bring it out. Most people don't mind driving on gravel occasionally, but with the 964 I go round every stoney patch. Originally I thought about how I could improve it, but apart from new Bilsteins it's absolutely standard; I have not touched the roll bars, they are in the middle position, and it's okay like this. I have a second set of tyres, too: narrower Pirelli Corsas. If I

“Even by the age of ten I was Porsche-minded”



**Above:** Walter Röhrl reveals a penchant for historic rallying to interviewing journo Johnny Tipler

**Top centre:** Walter drove a rare 1963 Porsche 718/8 RS in the Austrian Ennstal Classic rally

**Top right:** Walter's day job is shaking down every Porsche road car prototype until it's ready for release

**Below:** Walter placed second in the Historic Marathon, typically sideways and cocking a wheel, as here on the Nordschleife

## “We drove everything as fast as we could, flat out”

wanted to corner faster – tenths of seconds quicker – then maybe I would change the roll bars.

### **Which other Porsche models have you owned?**

I've had a 356 Speedster, a 3.0 Carrera, a 3.0-litre Turbo, a 964 C4 and in '87 a 959; I was doing prototype testing for Porsche, although I was still contracted to Audi, and Professor Bott had one of the 959 prototypes rebuilt for me so I could buy it cheaply. I sold it in 2000 because it needed a lot of maintenance, and I wasn't using it more than once a year.

### **What event would you take the GT3 RS on?**

I drive to Nürburgring for my testing job.

### **What was the most demanding Porsche you developed?**

I spent four years (2004-2008) on the development of the Carrera GT. Normally I come to the Nordschleife every three months to test the prototypes, and if I think there's no more room for development (in a road car context), I make a final test and say, "Okay, you can start with the production of this model now". But with the Carrera

GT I did all the test-driving from the first day until the last. Of course, it was very interesting. The problem was that the Carrera GT is basically a race car, and we had to make it into something that normal people could use. But you should not kill it completely; it should still give the impression that it is a race car. But it's very difficult to find the right compromise between the race car and the everyday car. But I think finally it's okay, because if somebody pushes it there is traction control. I was always more involved with the development with very sporty cars like the GT2 Turbo and GT3 RS. With the normal Boxster and Cayman, in two years I came just four times and drove the car until I could say, "It's okay".

### **How dangerous is being a test driver?**

Well, for example, I was in Nürburgring to make the final tests on the current GT2, and on the final test it's always very important to have a good [lap] time to tell the engineers, then they know exactly if it is faster or not. It's called 'industry week', and it's always on the new 'Ring, with firms like BMW, Conti, Pirelli, all the test drivers are buddies, everybody knows each other, and these guys are so fast that you don't have problems. I did my fast lap at 7:29,





even with the tyres done, and I passed 11 cars. Because you're going so fast they don't see you coming, and that's dangerous. You go 310kph [193mph] and you've got to look out... there was this lady in an Audi A3, and she was not watching, and I passed her at 310kph, and she was all over the place. After that test-drive I told Porsche, "It's finished with these fast cars on here: either you have a closed road or I don't do it, it's too dangerous now." But even so, I'm still testing cars on the Nordschleife. [Directly after Ennstal, Walter went to the Ring to spend a week driving Porsche prototypes.]

**How far will a car have travelled in the development process before you get involved?**

The first time I see the car, I would say 85 per cent of the basic setting up is done. Because they know which springs to use and the weight of the car, it's just the small things that need fine-tuning. Then maybe I say, "You could use harder springs, you can use stiffer roll bars; we can change something on the shock absorbers, we should try to get better response from the engine, the brakes have too much bias to the front, the car is rolling too much," things like that. With standard cars like the GT3, it is always the small changes that make the difference... like harder springs. If you are really hard on the brakes you sometimes have the feeling that the car is not exactly following the steering – you notice it is pulling to one side, because obviously something geometric is moving. Then they change things like this, very slightly. Normal people never reach this level of driving. But there is one very important thing Porsche is doing: we are really trying to make the car drive up to the limit, 100 per cent. It's a fine line: if I go 8:02 at Nürburgring, the car is probably perfect. But if I go 7:59, suddenly the same car is beyond the limit. That's a big advantage for Porsche – that we are able to find the limit and make it drive up to that point.

**What is the most significant innovation you have made?**

In '93 I said we need servo steering: there was no servo until then. We tried it at the Nürburgring with a 3.8-litre RS with – and without – servo. I was one and a half seconds quicker on the new circuit with servo steering, because it was so much easier to control. So from the 993 onwards all Porsches had servo steering. The four-wheel drive system changed, too, from the 964 Carrera 4 to the 993. I was in the wintertime Arctic testing cycle, and although I was a bit faster with the old system, our regular test drivers were much faster with the new one. So even though we had less good traction, we had much better handling. That was the biggest thing I brought in.

**In 1990 Porsche made a Tiptronic 964 racer for the Carrera Cup and you drove it at the Nürburgring. Did the four-speed semi-automatic shift work in a racing context?**

Weissach built 50 Carrera Cup 964s for the original series, and fitted one car with the brand

new Tiptronic semi-auto transmission. I drove it in Round 7 on the combined Nürburgring F1 circuit and the Nordschleife, starting from sixth on the grid. I thought at the time, "It is good, it is easy, I cannot over-rev the engine – this is the future of road cars, given the intensification of traffic; it's the future of gearbox technology." But in fact, it was very hard for me in the race because I had only three useable gears, as the first one is too short. I could manage to compensate on a circuit like the Nordschleife, but I was seven seconds slower than the best Carrera Cup lap time. During practice I was alone so I could carry the speed into corners, but in the race the other cars slowed me down, so after the corners I had no momentum, because with one gear less the jump in engine revs were too big.

**You obviously love racing and rallying classic Porsches, like the 718/8 you were running at the Ennstal Classic.**

Yes, I won the first Ennstal Classic 20 years ago in my Austin-Healey 3000 Gen2 with my wife co-driving, and then six years later in a 356 Carrera 2 with Peter Falk (Porsche's race director for 34 years) as my co-driver. It's become a lot more professional and attracts many more people now. And I won the Targa Tasmania last year with Christian Geistdörfer in a 911 SC. I prefer to drive rallies on fastest times: I don't much like regularities. Back when I was champion we drove everything as fast as we could, flat out.

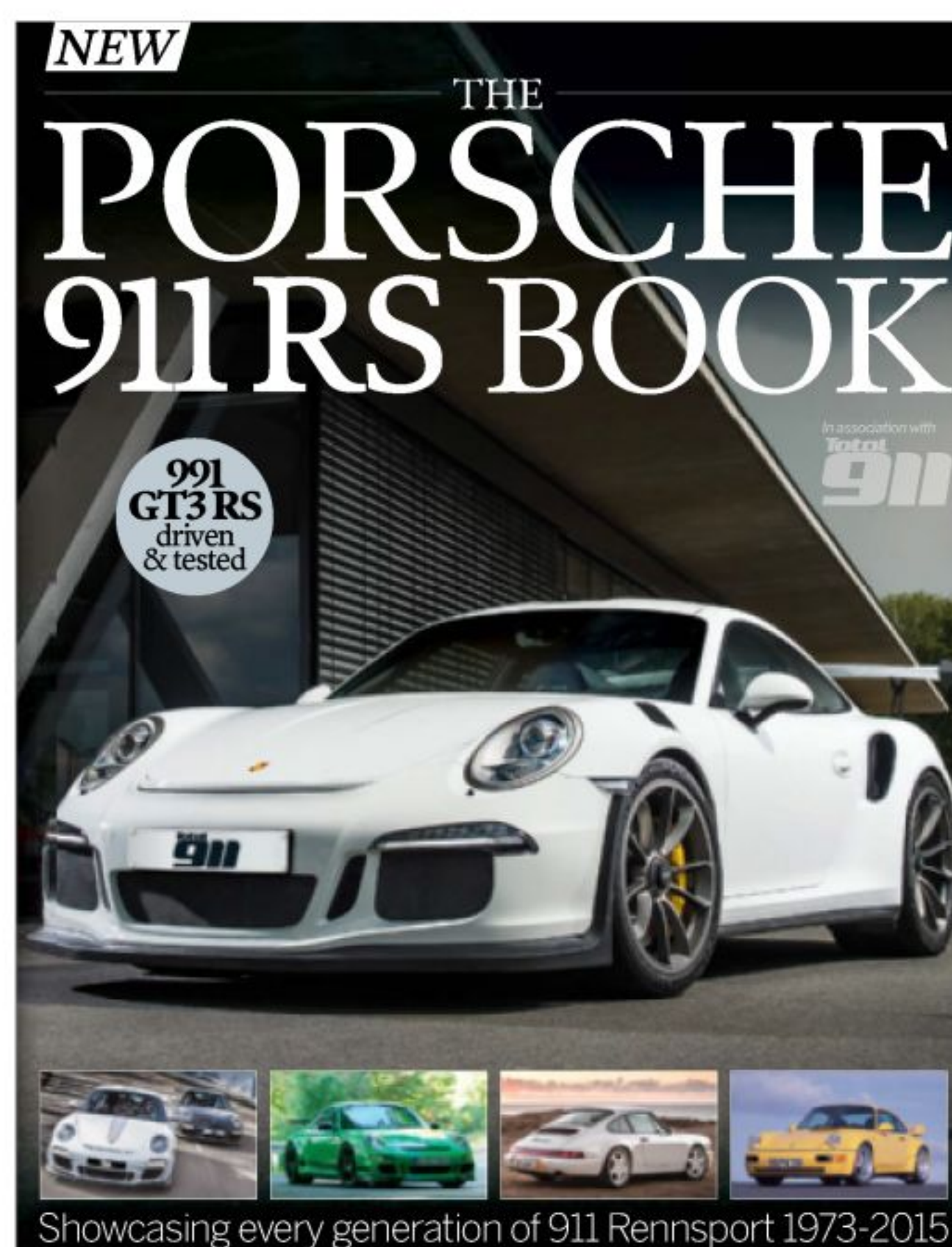
**You scored 14 WRC victories, as well as two World crowns. What's your favourite rally car?**

I drove the 1981 San Remo Rally with a works 911SC, entered by Alméras with my regular co-driver Christian Geistdörfer. Even today I'm sad I didn't win, as I was uncatchable; even on gravel the car was fantastic, one minute ahead of the Audis. But again I retired on the last stage with a broken half-shaft. That was my dream car. It was always more interesting to be driving a car which was not the big favourite. That way the driver can make the car. That was the motivation for me. The Ascona was a good car, but if I have to pick my favourite I would say my 911SC from San Remo. My preference for light cars is well known. That is the reason the 911 is so fantastic, and if it's raining the 911 is so easy to handle. **911**



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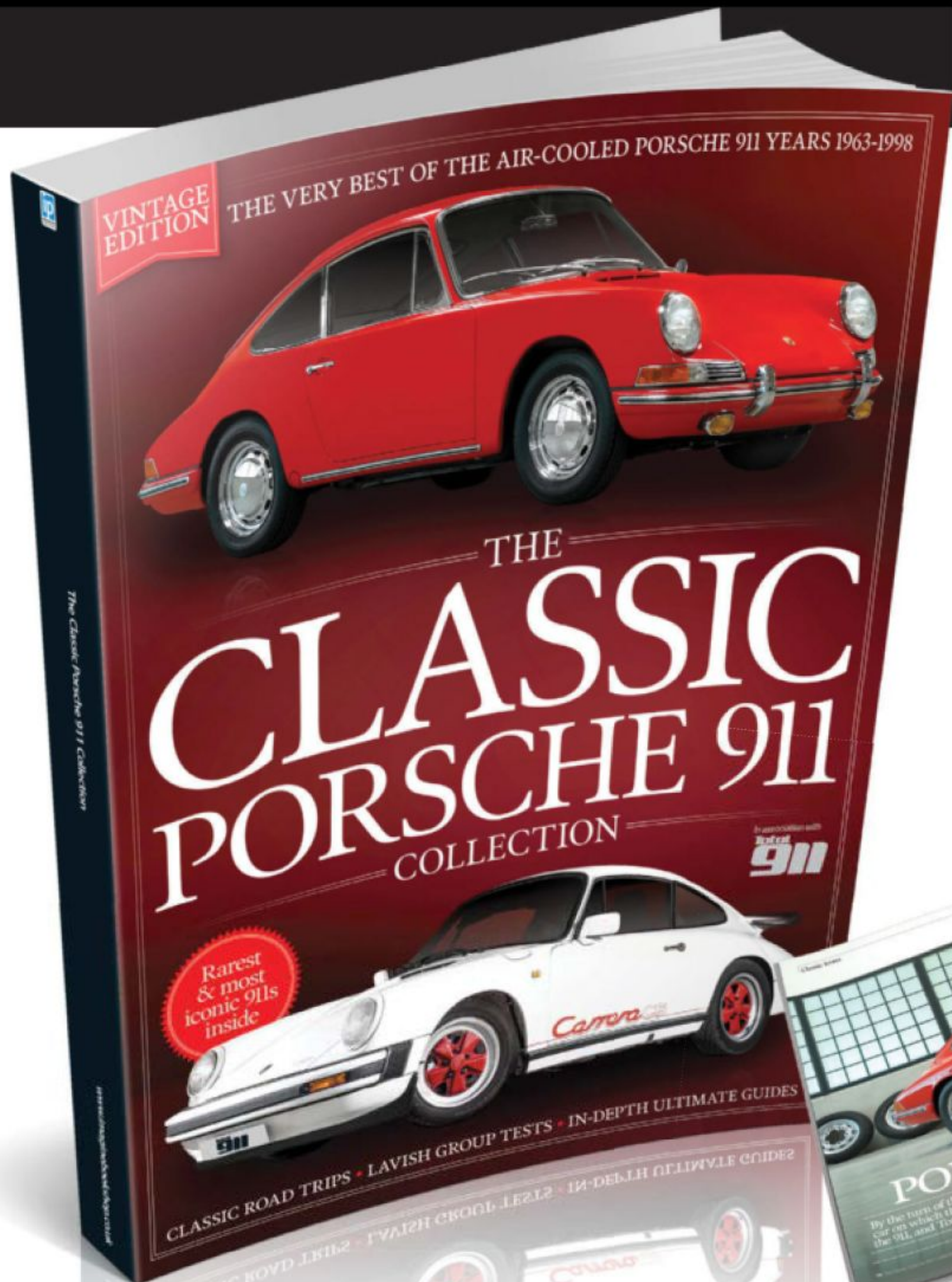
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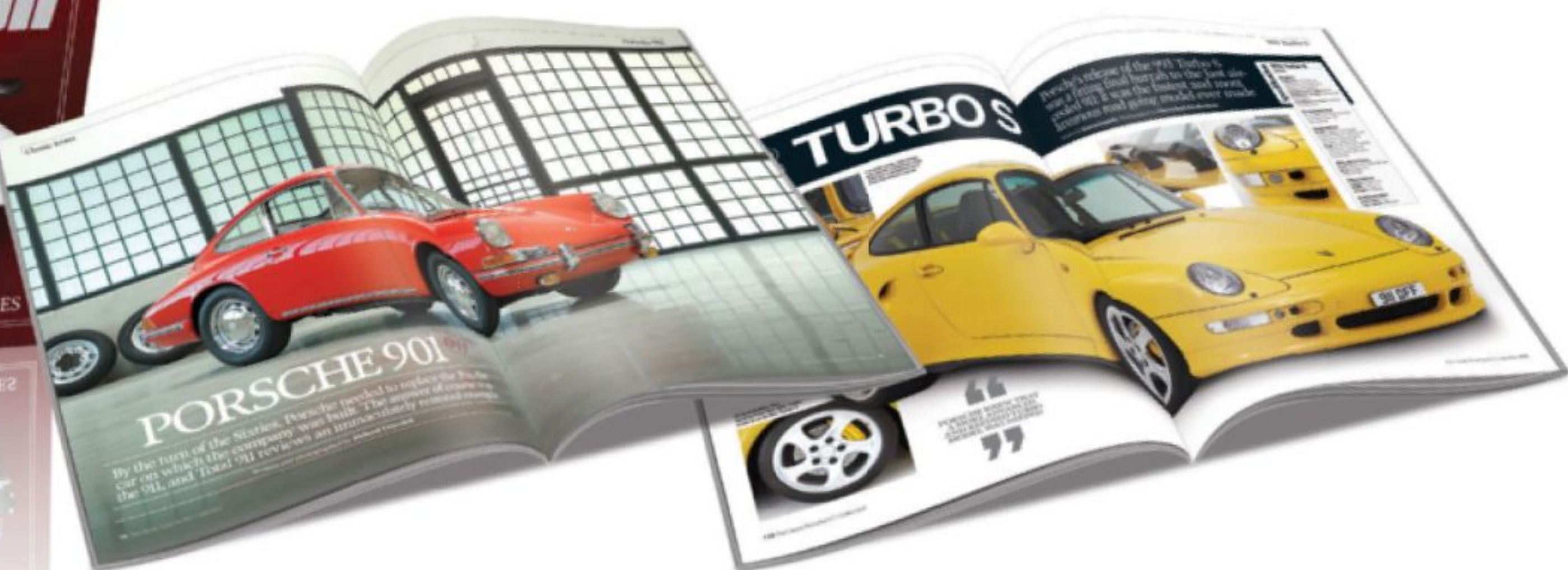
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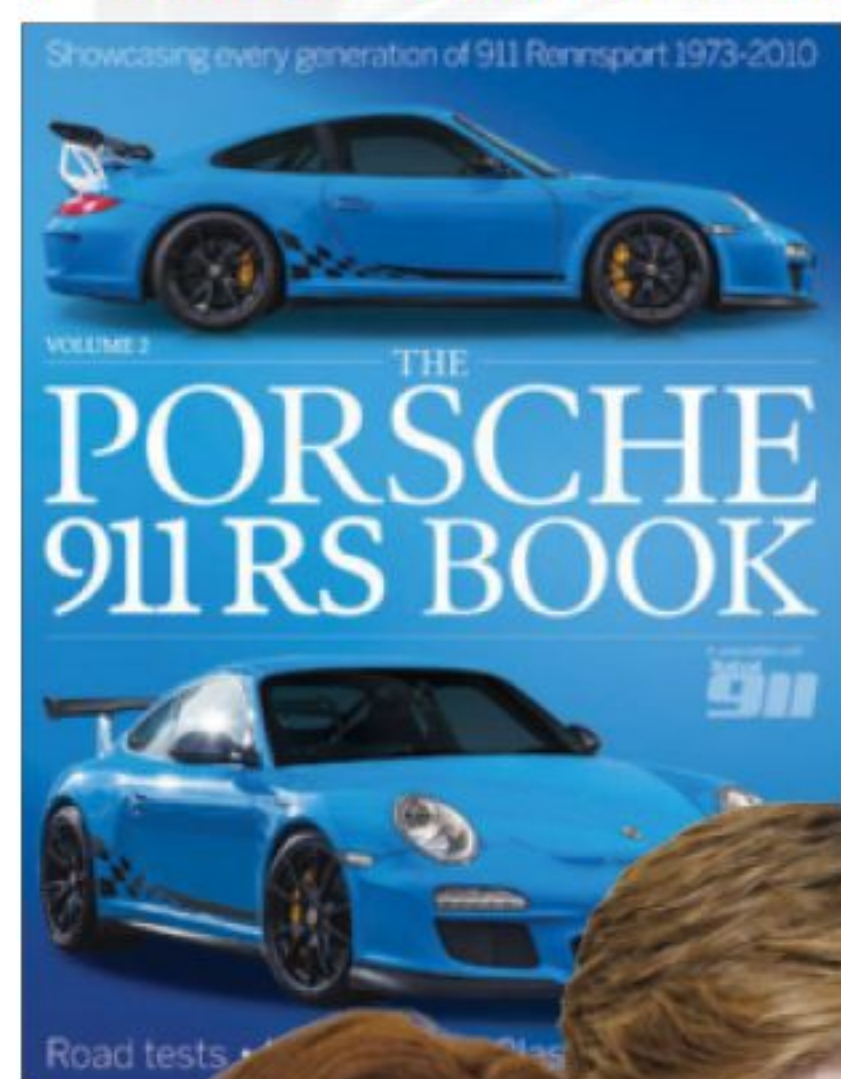


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