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# PORSCHE

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

#### **EDITORIAL**

Editor: Dan Furr, dan.furr@kelsey.co.uk

Contributors: Karl Ludvigsen, Dan Sherwood, Sharon Horsley,
Steve Bennett, Alex Manos, Rich Pearce, Robb Pritchard,
Paul Knight, Chris Wallbank, Robert Smith, Mark Walker

#### **ADVERTISING**

Group Advertising Manager: James Stainer, 01959 543515 or 07948 802130

#### MANAGEMENT

james.stainer@kelsey.co.uk

Chief Executive: Steve Wright
Chief Operating Officer: Phil Weeden
Managing Director: Kevin McCormick
Subscription Marketing Director: Gill Lambert
Retail Director: Steve Brown
Print Production Manager: Georgina Harris
Drint Production Controllers: Kelly Origina and I

Print Production Warlager: Georgina Harris

Print Production Controllers: Kelly Orriss and Hayley Brown

Subscriptions Marketing Executives: Dave Sage and Claire Aspinall

Affiliate Marketing Manager: Kate Chamberlain

Publisher: Gareth Beesley

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For customer service support, please visit: help.kelsey.co.uk

#### Customer service and subscription postal address:

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

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NEXT ISSUE ON SALE FRIDAY 23RD DECEMBER





ith winter fast
approaching, many
of you will be thinking
about retiring your
classic Porsches
from the road until

spring. During this time, you're likely to be undertaking general maintenance work, but I'll wager you'll also be planning next year's motoring adventures. Anticipating exactly this, Kelsey Media (publisher of *Classic Porsche*) has partnered with the team at Scenic Car Tours to bring you the Isle of Man Classic & Sportscar Weekend. You can read all about the itinerary by visiting *sceniccartours.com/kelsey* and by flicking to page 64 of the magazine in your hands, but to summarise, this is a not-to-bemissed five-day tour of the Isle of Man including a selection of exclusive inclusions unavailable for groups booking outside the Kelsey offer.

You'll enjoy closed runs on the amazing Sloc

Mountain road, afternoon tea at the famous Creg-ny-Baa, a photo shoot in the TT pit lanes, admission to the Isle of Man Motor Museum and optional track laps on the Jurby Circuit. Four nights accommodation with a choice of hotels (suiting different budgets) is on offer, as is a daily Manx breakfast, ferry crossings, detailed road books, a commemorative tour rally plate and much more besides.

Due to the quirk of the island's laws, outside race season, much of the TT route has no speed limit. Yes, even today, away from Germany's Autobahn, there are still roads where you can drive your classic Porsche as fast as you wish! Also, where else would you see kerbstones painted in circuit apex fashion, black and white stripes, in sleepy towns and villages?!

The TT circuit is drivable in either direction, but most will choose the traditional clockwise route, taking in Bray Hill, Ballacraine, Alpine Cottage, Ramsey Hairpin, The Bungalow, Windy Corner and many other evocatively named corners and mile markers. Tempting, isn't it?

Road trips are one of the most exciting — not to mention most rewarding — aspects of classic Porsche ownership, especially when shared with like-minded enthusiasts. Don't delay, book today.



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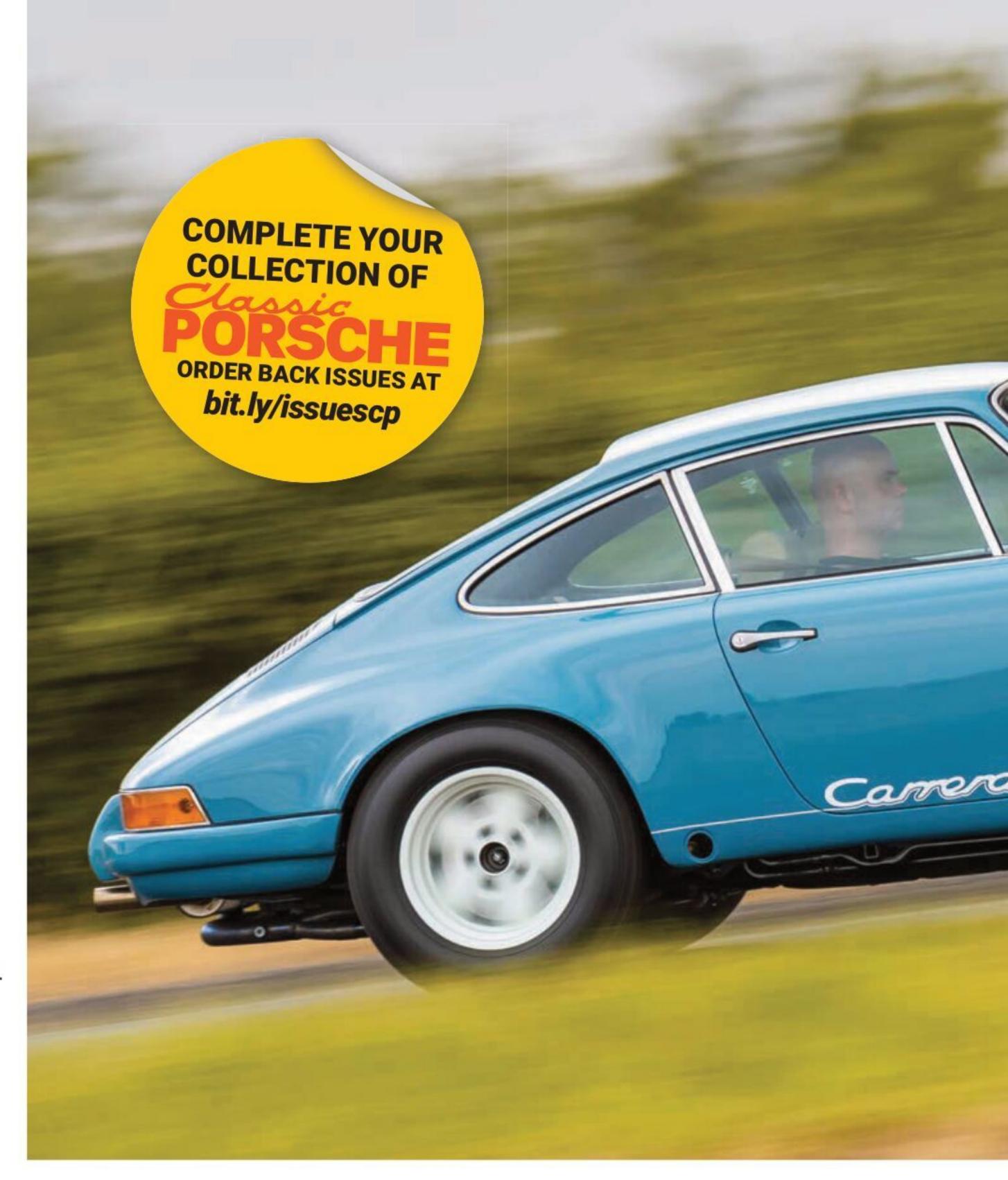
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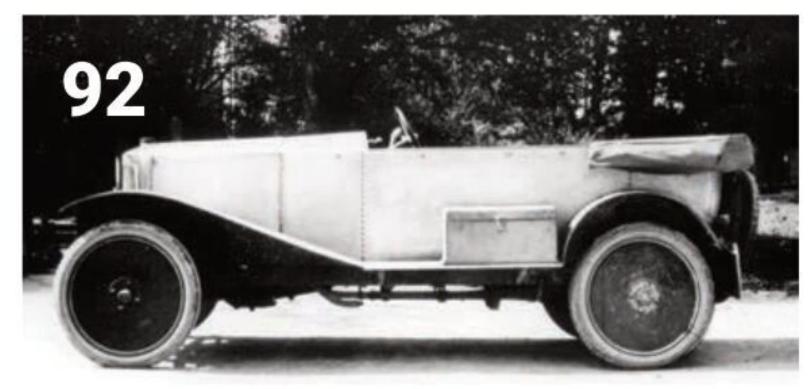
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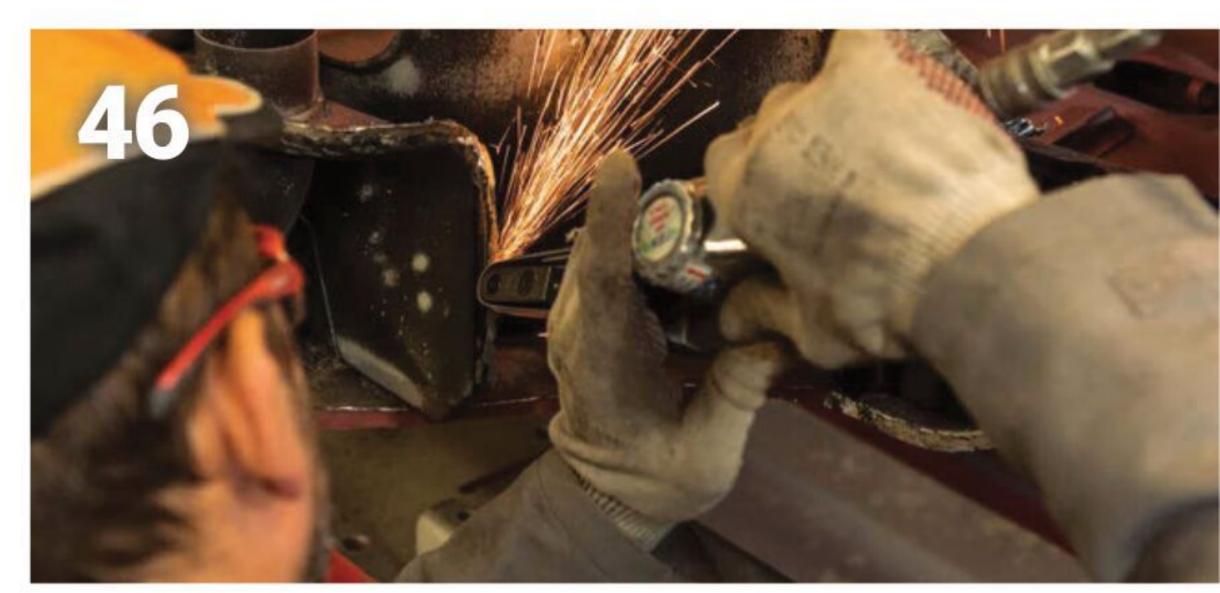












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Can a Porsche restomod be all things to all people? Miki Kazmer, founder of Budapest-based KAMM Manufaktur, certainly thinks so. Moreover, he's attempting to prove the point with this reimagined 912, which his company presents as three Porsches in one...

Words Dan Furr Photography Rich Pearce



### **KAMM 912 C**

nother month, another string of Porsche restomods. But wait! Standing out against a crowded sea of newly launched 911-based builds is this lean, green, carbonclad machine developed on the 912 platform. More than half a century on from its original point of manufacture, this beautiful 'baby 911' has been redeveloped for modern driving by the car's author, Miki Kazmer, a Hungarian film producer with a passion for Porsche.

We meet at Goodwood Motor Circuit on a dry day in early October. I've arrived in my Bentley Arnage T, a magnificent mile muncher, which has carried me all the way from my home in Norfolk down to the south coast. Measuring seventeen feet long and powered by a near 500bhp 6.75-litre twin-turbocharged V8 developing 645lb-ft torque, this 'cathedral on wheels' is about as far removed as it's possible to get from the dinky four-cylinder Porsche Miki is about to gift me for the day, but that's not to say he hasn't considered luxury in the make-up of this reimagined air-cooled classic. For example, despite being stripped back to a featherweight 750kg (compare this to my Bentley tipping scales at 2,585kg), this 912 makes use of a cabin populated by four seats, carpets and lashings of leather. "I wanted this to be a Porsche you'd be comfortable in when commuting or driving

short journeys around town, as well as when cruising on long-distance road trips," he tells me. "Simultaneously, the car needs to be ready to convincingly attack a track. It's a delicate balance, but essentially, I wanted to combine three classic Porsches in one."

Hungary's capital, Budapest, has a surprisingly well-developed car culture, born out of a desire for individuality. "During the country's socialist era," Miki remembers, "drivers had to be creative, home-tuning whatever four-wheelers they could get hold of. A burning desire to make whatever was available as fast and as beautiful as possible spawned a talented and dedicated automotive scene. Then, in the 1990s, as our country's





borders opened and Hungarians gained access to western cars, creativity and talent in the Budapest automotive industry evolved very quickly." The knowledge and skills base of those active in the scene has been growing exponentially ever since, a trend perfectly demonstrated by development of the 912 Miki has brought to Goodwood for me to play with.

### **FOUR TO THE FLOOR**

The 911, you might think, would be the obvious starting point for Miki's vision of a do-anything classic Porsche, especially when he cites the legendary 911 R as his inspiration, but with the cost of acquiring a mid-1960s Neunelfer now stratospheric, he reasoned the thirtyodd thousand 912s built between 1965 and model discontinuation in 1969 provide a far more cost-effective and readily available platform for him to work with. Besides, many of the 911's core components, including the body shell, were shared with the 912 as a way of keeping manufacturing costs low in period – despite being a rear-engined sports coupé like the 356 before it, the 911 would always be a considerably more expensive proposition thanks to the introduction of a six-cylinder powerplant. Concerned the 911's asking price (some thirty percent higher than the outgoing 356) would reduce overall sales for the brand, Porsche pulled together a plan of action intended to produce a more affordable, four-cylinder version of its new car, thereby maintaining appeal for Porsche products among less affluent buyers. To keep development costs low, many of the same components were used across both the 911 and 912.

Initially given the factory designation 902 (to tie in with the 911's original 901 identifier, which was changed to 911 after a challenge from Peugeot claiming ownership of three-digit model names with a zero in the middle), the car which would go on to become the 912 first appeared in 1965. It fulfilled its maker's brief to the letter, combining the curvaceous looks of the then new 911 with a simpler, less powerful four-cylinder engine. Options explored, but ultimately discounted, included a

new engine based on the flat-six, as well a unit derived from the Type 616/16 powerplant used to propel the 356 SC. In response to concerns about the little amount of cash Porsche had to play with, however, a detuned version of the 356's regular 1.6-litre engine became the preferred choice.

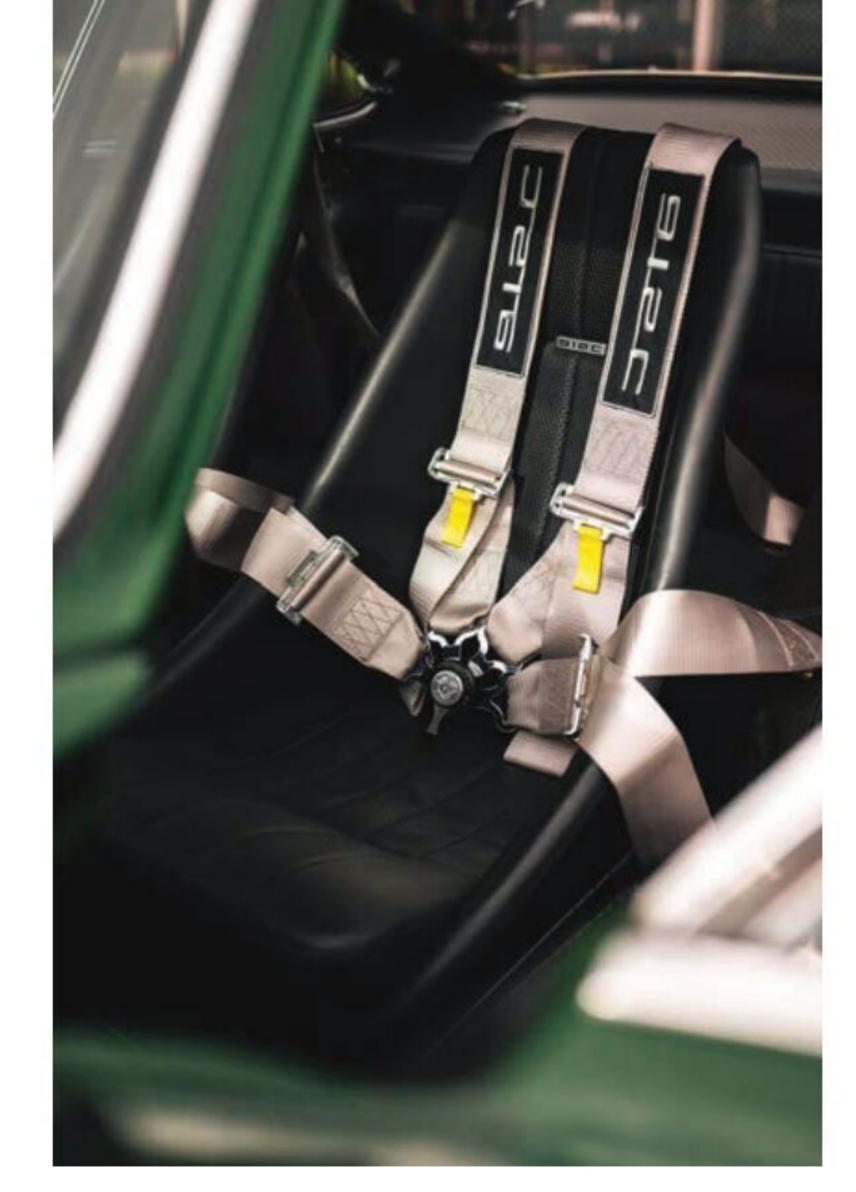
The resulting 616/36 featured cast-iron cylinder liners and a finned alloy jacket in addition to a light alloy crankcase and matching cylinder heads. A pair of twinchoke Solex carburettors and low compression ratio of 9.3:1 meant the new 1,582cc unit developed 90bhp at 5,800rpm. This was down 5bhp when compared to the 356, but the 912's engine delivered its 90lb-ft torque 700rpm lower than that of its predecessor. A Type 901 four-speed gearbox provided the drive, while 60mph was reached from a standing start in 11.6 seconds. Yes, the 912 was off the pace of the 130bhp 911, but the smaller-engined Porsche still managed to deliver respectable performance, especially at a time when drivers in the USA were experiencing enforced tightening of speed limits — at 115mph, the 912's top speed was 16mph lower than

Above Custom horn grilles are an example of the attention to detail lavished on this 912, which is due to be updated before it spawns series production in January

**Below** Tilton pedal box allows excellent modulation of the unassisted 964 brakes



10 December 2022





Above and below Carbonfibre is everywhere you look, contributing to overall weight of just 750 kilograms

that of its six-cylinder sibling, yet the smaller-engined Porsche was faster and quicker than the 356 due to a more aerodynamically advanced body and advanced-forthe-time independent suspension.

Looking at the 912 and 911 side-by-side, it may have seemed as if buyers were being short-changed, but Porsche was keen to highlight how the four-cylinder car offered considerable benefits over the brawny six-shooter. For a start, superior 44/56 front/rear weight distribution trumped the 911's 41/59, while the 912's more neutral handling meant it was less likely to bite at the limit. Helped by its lighter engine and overall weight of just 970kg, the 912 was also more economical, returning close to 35mpg. With a silver rear badge designed to let admirers know they weren't staring at the model's more powerful stablemate — 911s wore gold-coloured emblems — the 912 officially entered production on the 5th April 1965. At DM16,250 (£2,466), the model cost DM6,000 (£972) less than a 911.

Porsche would soon discover it had a hit on its hands

– by the close of 1965, 6,401 912s had shifted out of

dealer showrooms. This figure is almost double the 911's 3,390 sales volume for the same period. Interestingly, until production of the 356 ended in September of the same year, Porsche limited availability of the 912 to continental Europe, but from September onward, the model was available to buy in the USA. With a price tag of \$4,700 against the top-line 911's \$6,500, sales success was assured.

### STRONG IMPERSONATION

Though it was built to attract buyers who couldn't stretch to the pricier 911, the 912 was virtually indistinguishable from the more expensive Porsche. As mentioned earlier, the cars shared the same body, but also the same fifteen-inch wheels and the same 165HR tyres. Moreover, the 912 used the same size brake discs and the same suspension as the 911. That said, the cars could be told apart if you knew where to look. For example, the 912 made use of plastic interior trim (where wood adorned the 911), and where there was a complement of five dash dials in the faster car, buyers of four-cylinder machine had to settle for three. Also, the 912 lacked the black plastic finish atop the 911's painted dash, a feature inherited from the 356.

Patience paid off for would-be buyers when the five-dial instrument cluster from the 911 became standard equipment for the 912 in 1967. Additionally, Fuchs five-spokes became a cost option, allowing the entry-level Stuttgart speed machine to look even more like a 911 than it already did. Heightened specification, however, attracted heightened cost — in the UK, the cost of acquiring a new 912 rose to £1,974, saving buyers only £462 over shelling out for a 911.

Miki was keen to start his build with a higher-spec fivegauge 912, hence the purchase of the 1968 example his team transformed into the emerald-coloured marvel seen here. Not a million miles from British Racing Green, the colour is somewhat understated for a prototype intended to inspire series production, though in the interests of remaining true to the 912 aesthetic, the car's creator tells



**Above** JPS Aircooled custom flat-four produces 170bhp and mimics the look of the Type 547 Fuhrmann four-cam

me he'd rather the deep hue covered the entire body — beautifully woven carbon is exposed in flashes from nose to tail, whether it's the 'torpedo tops' of the front wings, the carefully isolated Mobil Pegasus motif on each flank, the door number circles or the stripe running down the centre of the engine lid, bonnet and bumpers. From a marketing perspective, it's important Miki's company, KAMM Manufaktur, promotes just how much premium carbon-fibre has been used in the construction of this car. In this regard, the exposed weave does a brilliant job, even if it doesn't sit well with its master's desire for

'under the radar'.

his cars to operate

Needs must, however, and at least he's ensured this slender Porsche keeps original specification brightwork. Of

### MIKI TOYED WITH THE IDEA OF A HEWLAND SEQUENTIAL TRANSMISSION, BUT OPTED FOR THE OEM-PLUS APPROACH

course, it's important to note those placing an order for a KAMM 912 C (C for *carbon*) can have whatever finish they want. "A wrap would drop weight even further," Miki shrugs. In fact, he reckons there's at least a further fifty kilos to be ripped out of this car without much effort. "Further savings can be made through the adoption of alternative engine supporting components, such as a lithium battery," he reasons.

Lifting the super-light engine lid, I'm presented with even more carbon-fibre. It's everywhere, from the throttle body trumpets to the shroud surrounding the beefed-up flat-four. "I don't really like the 'doghouse' look of the standard Type 616 boxer, which I consider too similar in appearance to same-age Beetle engines," Miki explains.

"With this in mind, my engine builder, JPS Aircooled, sourced a Type 547 four-cam engine cooling shroud which was subsequently used as the template for a carbon-fibre version made specifically for this 912." Open the lid and the result is something of a 'jewellery box' effect, but don't be fooled into thinking the changes are only skin deep.

An aerospace engineer by trade, Josef 'Pit' Schweiger established JPS Aircooled in the Swiss municipality of Geuensee as a producer of high-quality precision parts for 356 and 912 engines. From valvetrains to pistons

and cylinders,
manifolds, flywheels
and carburettor
components, Pit
has been providing
individual parts
and oversized
four-cylinder aircooled engine kits

(displacement ranging from 1,720cc through to 2,054cc) to owners of early Porsches for many years and has an international client base spanning all four corners of the globe. JPS was therefore the obvious choice when Miki wanted to partner with an engine builder capable of thoroughly transforming his 912's 1.6-litre lump.

It's now a two-litre unit developing near 170bhp, which might not sound much, but at only 750kg, the power to weight ratio on offer is in keeping with many of today's smaller sports cars, ticking the box on Miki's wish list dictating this 912 needs to be capable of keeping up with modern traffic. The engine sings through Weber 44IDF carburettors, K&N air filters and a bespoke GT3-style exhaust system. The boisterous boxer also boasts 10.5

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(with front coilovers manufactured to KAMM's exacting specification), plus adjustable rear arms, RSR-style antiroll bars and polybushes throughout. "If we ditched the torsion bars and switched to full coilover suspension, we could bring the engine further forward, thereby improving front-to-back distribution of weight," Miki says, reminding

Climbing into the car is a breeze. There's no roll cage

me this is a prototype and how feedback gained during

this testing phase of the project will be fed into its next

round of development and series production. scaffolding to contort my body around, no awkward

Different ratios have been fitted, making for a suitably track focused cog swapper. A ZF limited-slip differential has also been added, while a hydraulic racing clutch provides greater shift control and ease of use in

The fifteen-inch rims are centre-

regular traffic.

THE STEERING IS HEAVY, **BUT VERY FAST, WHAT WITH IT OFFERING ONLY 1.7 TURNS** FROM LOCK TO LOCK

to jump over. That said, the seats are carbon hard shells, despite being trimmed (exquisitely, I might add) to look like vintage Recaros. Each pew

bucket seat bolster

is also kitted out with a five-point safety harness, which is complete overkill for the road, but the track bias of the 912 C prototype's configuration — we're at Goodwood, after all — lends itself to this kind of heavy-duty safety equipment. In truth, it makes a change for me to hop into a 912 with any kind of seat belts. Porsche offered them as an optional extra in period, deeming them only desirable for those who intended to hit the track.

Ahead of me is the oh-so-familiar sight of a MOMO Prototipo steering wheel, a part so common in the field of air-cooled Porsches, you'd be forgiven for thinking the drilled three-spoke was a factory fit. A sign on the dashboard confirms the rev limit is set at 6,800rpm,

the KAMM 912 C came from time he spent drooling over a surviving 911 R race car

They're actually a replica of the classic Ford GT40 sixspoke alloy wheel and can be optioned with a centre plate and spinner to give a classic look for cars using modern bolt-on hubs. For today's joy toy, they're painted anthracite and are wrapped in sticky Yokohama Advan Neova AD08RS semi-slicks with 205/50 and 195/55 profiles at the front and rear respectively. Peeking out between the front six-spokes are 964-generation 911 calipers, while "aluminium Brembos" clamp vented discs at the rear. Incidentally, there's a hydraulic handbrake at play, allowing drivers to do their very best Ken Block

impression whenever the urge takes them.

lock BRM6s from UK manufacturer, Image Wheels.

the hassle of a classic car not being reliable"), 44/36mm

valves, titanium retainers, billet aluminium 'Sport Plus'

camshaft and a rev limit set to 7,200rpm.

cylinder heads, billet intake manifolds, a custom-profile

Transferring power to the rear wheels is a five-speed

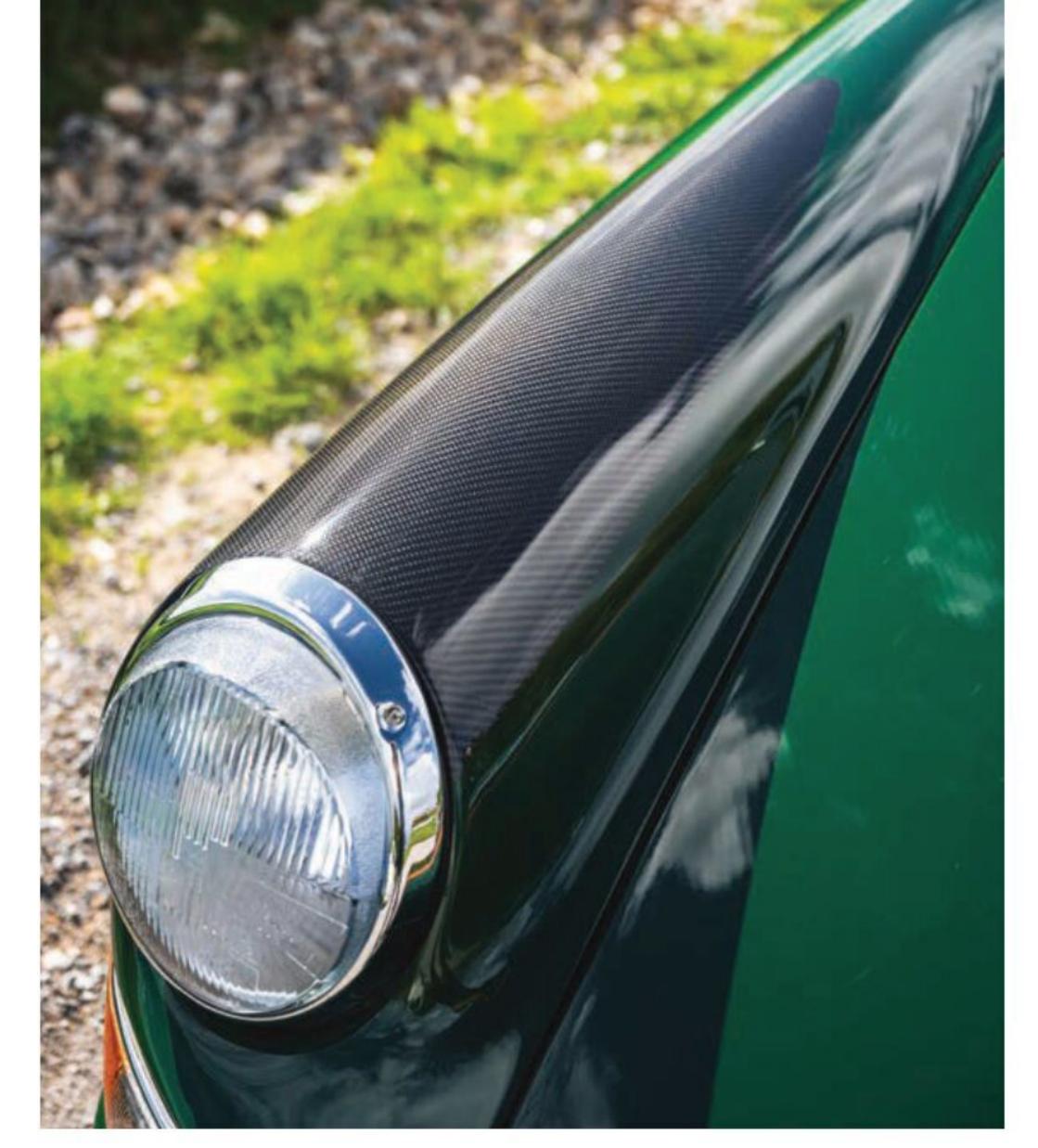
dog-leg Type 901 gearbox, replacing the car's original

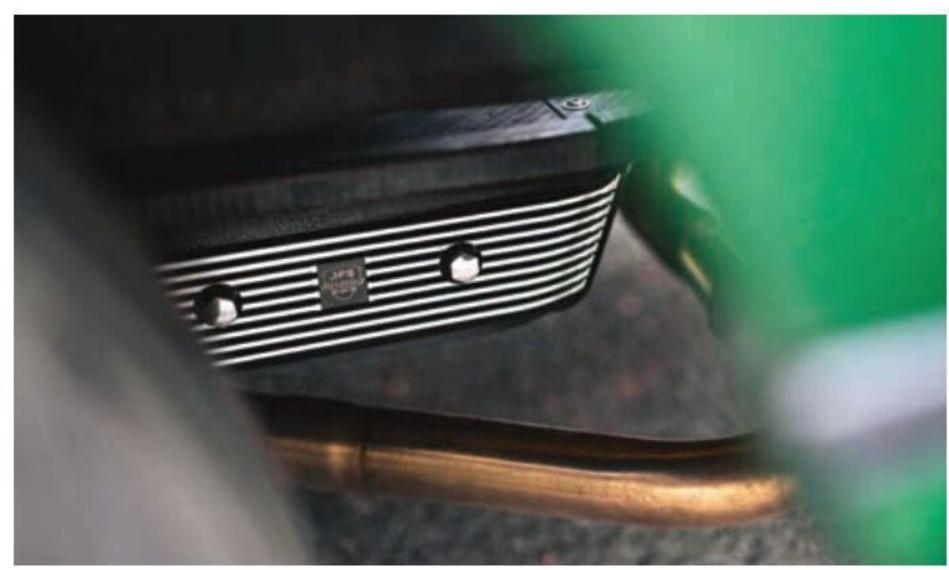
four-speed unit. Miki toyed with the idea of a Hewland

sequential transmission, but opted for the OEM-plus

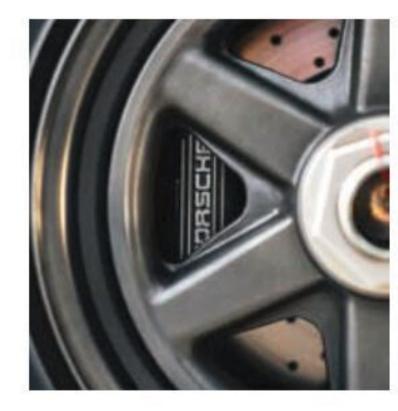
approach in a bid to stay true to the car's heritage.

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Above Carbon-fibre is exposed throughout, affording prospective purchasers the opportunity to see just how much lightweight weave has been used in the construction of this special 912

Right Wheels are BRM6 Ford GT40 centre-lock replicas

**Below** Tacho goes up to 10,000rpm for giggles, though the redline is set at 6,800rpm though the tacho registers all the way to 10,000rpm. I'm told this is nothing more than Miki being playful. Carbon-fibre is everywhere I look, from the steering column cowling to the door cards, dash strip, floor boards, parcel shelf and rear quarters. The short-shift gearstick is also constructed from carbon.

### THE MISSING LINK

"The biggest problem with the stock 901 gearbox is its linkage," Miki suggests. "Worn plastic parts cause a huge amount of movement. My team designed a new uniball-free linkage incorporating chromoly tubing and all new metal bearings, thereby reducing movement. The last thing I want is for someone to question which gear they're about to select when they're driving. It's important the KAMM 912 C retains the analogue driving experience one expects from a classic Porsche, but removes the stress associated with operating an older car. Essentially, the new linkage incorporates a link for moving the gear stick front and back, plus another for left and right. The

outcome is greater feel and, with a gate in for reverse, there's no chance of accidentally selecting anything other than forward gears."

The seating position is very agreeable, as is the position of the pedals, sprouting from a modern Tilton pedal box. I twist the ignition key and the oversized flat-four catches immediately. On account of there being no soundproofing applied to the comprehensively restored body, plus all glass (save for the windscreen) being substituted with scratch- and heat-resistant Lexan polycarbonate, the noise of the twin-fan motor fills the cabin as if the engine is sitting right beside me. There's an urgency to the growl, completely befitting of a classic Porsche in this guise. It's glorious, but this is the JPS flat-four operating only on idle! I can't wait to hear what it sounds like at full chat.

It's an uncharacteristically warm day for the time of year, so I flick on the Classic Retrofit electric airconditioning and get ready to pull away. For all Miki's work on the gear shifting mechanism, slotting into first is a challenge (later, I discover the 'knack'), but in-gear shifting is a cinch. The steering is heavy, but very fast, what with it offering only 1.7 turns from lock to lock. This is immediately a very physical drive, perhaps emphasised by the fact I've spent the preceding hours piloting a car with absurdly light steering manageable with the tips of my fingers. Miki stresses the KAMM prototype is more circuit-biased than he intends the company's production run of 912s to be, hinting further development work will result in less of a workout behind the wheel.

We might be at Goodwood, but I'm interested to know how this Porsche tackles UK roads. I hit the public highway and am relieved to discover the ride is pleasingly compliant. Sharp turns of the steering call the limited-slipper into action, quickly and positively switching the direction of travel, but the inevitable rendezvous with one of the area's many potholes highlights just how stiff the suspension is. Bang! This car sniffs out every undulation, every imperfection in the road. Feedback from





the steering is so great, I feel everything the chassis is experiencing, though the generously padded seats do a great job of absorbing bumps, thereby ensuring my fillings don't fall out. I wouldn't go as far as to say this 912 is out of its comfort zone, but dialling-down of the aggressive track-focused suspension settings will be an essential part of what makes this car usable in everyday driving conditions. A semi-active electronically controlled system, such as that offered by TracTive, strikes me as the perfect solution here, allowing quick and easy selection of different driving modes for fast-road, commuting and track work.

Fortunately, I know of some well-maintained rural roads around Goodwood, including ribbons of asphalt

punctuated by
tight twisties. It
strikes me these
will provide a fairer
proving ground for
the car's current
configuration. As
expected, it's here
the KAMM car

# THE BEAUTY OF THESE VEHICLES IS THAT YOU DON'T NEED TO BE TRAVELLING FAST TO BE THRILLED BEHIND THE WHEEL

really comes into its own. As many owners of flat-fourpropelled air-cooled Porsches will tell you, the beauty of these vehicles is that you don't need to be travelling fast to be thrilled behind the wheel.

The JPS two-litre boxer effortlessly climbs toward its redline, screaming intensely from the rear. It's possible to wring the neck of this car and explore much more of its performance potential than, say, a same-age two-litre 911 — you can drive the KAMM 912 at ten tenths, whereas you're probably only likely to explore half of what a same-displacement air-cooled 911 offers before you run out of road or, more likely, talent behind the wheel.

Torque is just shy of 185lb-ft. In a car this light, that equates to GT3 levels of push. Best of all, you can hammer this Porsche hard without breaking the national speed limit. And, throwing this thing into corners, there's no twitchiness. The car feels completely planted at all times, hunkered down on those fat Yokes, the diff pulling the back end into line as soon as I've turned the wheel.

There's no fighting oversteer or understeer. Make no mistake, this is a demanding drive, but it's also hugely rewarding. "You can drive it like a go-kart," as Miki puts it.

I was expecting the unassisted 964 anchors to leave me wanting more stopping power, but they're perfectly adequate. In fact, everything about the drive is exceptionally well balanced, delivering a 912 which feels fast enough on the public road without making you feel like there's a tonne of untapped performance you're unable to exploit. It comes back to the accessibility of everything the flat-four has to offer, which in the KAMM car, is considerable.

Production of KAMM's line of 912s is expected to get underway in early 2023. Buyers will need to budget

£285,000, though that figure is reduced if interested parties supply a donor 912 for restoration and redevelopment. A limited number of build slots is on offer, with bespoke

trim costed on request. Considering the high quality of workmanship and exotic materials on display, and when compared to the price of other recently announced bespoke Porsche restomods, not to mention the fact Miki is working hard to refine the KAMM recipe to ensure buyers are getting three cars in one, that's a reasonable price point. It also speaks to the fact he wants his cars to be driven. Hard.

I've been promised a longer loan of the prototype following further development work during the winter months, enabling me to find out what it's really like to live with a KAMM 912 in each of the environments this reimagined Porsche has been designed to cater for. "I'm looking into alternative suspension solutions, but I'm also considering the appointment of drive by wire and Jenvey Dynamics throttle bodies," Miki tells me, admitting he's determined to further improve feel, damping control, feedback and flat-four poke. I can't wait — he really is on the verge of creating one 912 to rule them all. **CP** 

**Above** Is this a 912 you can live with for fast-road Sunday blasts, spirited laps around a track and the weekly shop?

16 December 2022







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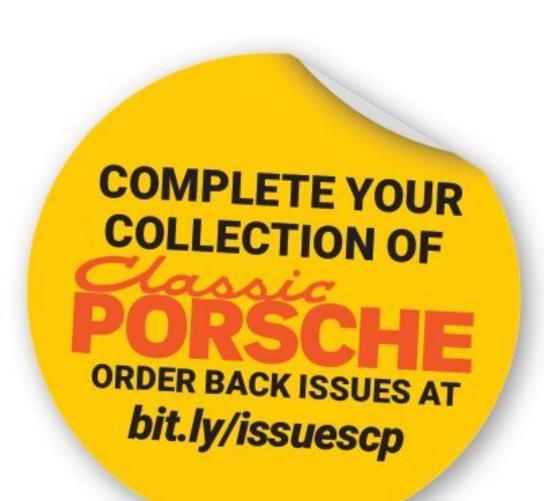
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# LIVEWIRE

Our look at what's happening in the wonderful world of air-cooled classics...



# L.A.'S PETERSEN AUTOMOTIVE MUSEUM OPENS EXHIBITION SHOWCASING TEN OF MAGNUS WALKER'S OUTLAW PORSCHES

Ten years ago, the award-winning documentary *Urban Outlaw* was released, detailing Magnus Walker's journey from his upbringing in Sheffield, England, to his life in Los Angeles as founder of alternative fashion label, Serious, and his subsequent career in real estate, investor cars and film-making. To mark the anniversary, the Petersen Automotive Museum has launched a new exhibition in its *Legends of the Vault* gallery, playing host to ten of Walker's Porsche Outlaw builds, as well as a selection of his personal memorabilia, such as a pair of his co-designed Nike SB dunks (inspired by his famous red, white and blue 911 T, known as '277'), various Hot Wheels models and examples of his signature Fifteen52 and MOMO wheels.

The exhibition runs from 15th October through to 31st January. "Which ten cars are on display?" we hear you cry. Chief among the air-cooled cars in attendance is Walker's 1965 short-wheelbase two-litre 911, verified as the 310th 911 manufactured. Originally delivered to the famous Brumos Porsche shop in Jacksonville, the car now runs a sport-purpose-built engine, a 901 five-speed transmission, early leather Schell bucket seats, fifteen-inch Fuchs and livery in silver, burgundy, grey and gold.

Walker's 1976 930 also makes an appearance. This is the first 911 Turbo sold in the USA, as documented by the Porsche Museum in Stuttgart. Cars numbered eleven to fourteen were press demonstrators, whereas this one (fifteen) is a life-long LA car originally delivered to Bob Smith Porsche in Hollywood and rumoured to have been ordered by actor, Robert Redford, who never took delivery. Walker's friend, Marty Mehterian, worked on the silver stunner for thirty years prior to Walker's ownership. "It's the type of 911 driven hard and put away wet. It's been resprayed a few times," Walker reveals. "Used, but not abused."

The most famous of his Porsches, '277', started life as a gold 1971 911 T before Walker took ownership at the Pomona Swap Meet in 1999 and transformed the car into his signature road racer. The tri-coloured 911 is



now powered by a 2.8-litre twin-plug flat-six mated to a 915 transmission and rolls on staggered fifteen-inch Fifteen52 Outlaw wheels.

### **SELECTION PACK**

Completed in 2015, Walker's 1990 964 is his most performance oriented build to date. The goal here was not to backdate or wide-body the 964 chassis. Instead, the car gained design cues from the 356 and the RUF CTR 'Yellowbird'. The car maintains its narrow-bodied silhouette, original bumpers and the majority of its factory sheet metal, but features louvred wings, a channelled roof and a custom 'whale tail'. Walker deleted the rain gutter drip rails and added R-inspired integrated turn signals and plexi quarter windows. Mechanically, the car makes use of a BBI-built 3.8-litre 993 Carrera RS-inspired motor, Brembo race brakes and KW coilovers.

Other cars on display are Walker's 1995 RS-look 993 Carrera, his 1980 924 Carrera GT, his 1973 914, 1978 911 SC hot rod, 1967 911 'SRT' and his 2004 996 GT3. For exhibition tickets, visit *petersen.org/outlaw*.













### 956/962 REUNITED WITH STAR DRIVERS TO MARK FORTY YEARS OF GROUP C

Derek Bell is now eighty-one years old, but when the lean Brit climbs into 'his' 956, he cuts as elegant a figure as ever. While forty years ago it seemed like he was simply doing his job, today he concedes "we worked like crazy." By 'we', he means all the racing drivers who drove the 956/962 models at racing speeds, although he's thinking particularly of Jochen Mass, Hans-Joachim Stuck and Bernd Schneider. All four speed merchants came to Leipzig to share their very special personal recollections of the most successful Porsche racing machines for a new film we've shared on the *Classic Porsche* Facebook page.

At the Porsche Experience Centre in Leipzig, Bell and his colleagues were reunited with 956-002, winner of the 1982 24 Hours of Le Mans. Also present was chassis 956-005, which won the 1,000-kilometre races at the Nürburgring and Spa, among other triumphs. This particular 956 was fully restored at the Porsche Museum and returned to its 1983 livery. Both cars were joined by the IMSA-spec 962 from 1984, which posted the fastest qualifying time at Daytona, and the recently restored Shell-liveried 962 C, winner of the ADAC Supercup in 1987. Beside them was the no.17 962 C, which took top honours at the 1987 24 Hours of Le Mans. As if this wasn't excitement enough, also present was a younger representative of Group C: 962-015, one of Joest Racing's cars and the fourth-place finisher at Le Mans in 1990.

The reunion was also attended by period test engineer Helmut Schmid and — joining by video — Norbert Singer, the head of the 956/962 project. Such an assembly of experts and former works driving heroes needed a host who could meet them on an equal footing. In this case, it was Timo Bernhard, Le Mans winner in 2010 and 2017 (with Audi and Porsche respectively). "The 956/962 is the most successful race car in the history of Porsche. It dominated every event it entered and remained a winner for an unbelievable twelve years," he gasps. Indeed, the 956 was unbeaten at Le Mans from 1982 to 1985. This success was

# SUCH AN ASSEMBLY OF EXPERTS AND FORMER WORKS DRIVING HEROES NEEDED A HOST WHO COULD MEET THEM ON AN EQUAL FOOTING

seamlessly continued by the model's successor, the 962, which took first place in the twenty-four-hour race at Circuit de la Sarthe in 1986 and 1987.

The 956/962's list of successes is hugely impressive. Among the spoils are five manufacturer's and team titles, forty-three individual victories at World Endurance Championship (WEC) races, five WEC driver's titles, seven overall victories at the 24 Hours of Le Mans (from 1982 to 1987 with the 956 and 962, and again with the 962 Dauer Le Mans GT in 1994), four International Motor Sports Association (IMSA) titles, fifty-two individual victories in IMSA races and five victories at the 24 Hours of Daytona. "Thanks, Norbert, for making it all possible!" beams an excited Jochen Mass.

Little wonder the protagonists are in fine spirit. After all, they begin the day flying in formation on the 3.7-kilometre, FIA-certified circuit at Porsche Experience Centre Leipzig, the design of which recalls some of the best-known sections of the world's race tracks. Although the drivers weren't going quite as quickly as they would have back in the day, everyone gathered got goosebumps as the powerful race cars — with their distinctive engine notes — ripped down the straight one after the other. The fact these Porsche motorsport machines can still be driven in this fashion is thanks to the Historic Motorsport team based at the Porsche Museum, as well as restoration coordinator, Armin Burger.

To view the video, which includes period and contemporary footage outlining the preparations, milestones and developments of Porsche's fruitful Group C and IMSA campaigns, hop online, visit the Classic Porsche Facebook page and search for 40 Years of Group C-a reunion in Leipzig.









### 911 SC RESTOMOD TO GO UNDER THE HAMMER AT HISTORICS WINTER SALE

The 911 SC has always been a popular option with the mod squad. Plentiful, so as not to be too precious, and for many years, well priced. From a cost point of view, the Porsche scene is rather different now to where it once was, but the ethos is very much the same, with the SC remaining as something of a blank canvas for would-be restomodders.

What we have here is an early SC configured with right-hand drive. First registered in February 1978 and delivered to Glen Henderson Motors in Ayr, Scotland, the car retains its original handbooks and documentation, though as we're sure you'll agree after viewing the pictures on this page, this paperwork is now largely irrelevant, such is the transformation from standard SC to a 911 taking its influences from the 1984 Group B 911 SC RS rally car. It's a nice change from the usual backdating route.

Crucially for a 911 getting on for forty-five years old, this isn't just an SC RS homage, but a full, ground-up body and mechanical restoration carried out across three years (at the instruction of well-known historic 911 racing driver, Peter Rutt). The work was completed in April 2022.

Marque specialist, Steve Monk, owner of Bodywerkes in Iver Heath, tackled restoration of the shell, which included new inner and outer sills, floorpan, new wings and rear quarters, with the rear arches re-shaped to a wider profile. The body was reinforced and weight was significantly dropped by the appointment of new SC RS-style lightweight bumpers.

# FIGURES SHOW POWER UP FROM THE ORIGINAL 180BHP TO 236BHP AT 5,800RPM WITH 220LB-FT TORQUE AT 4,400RPM

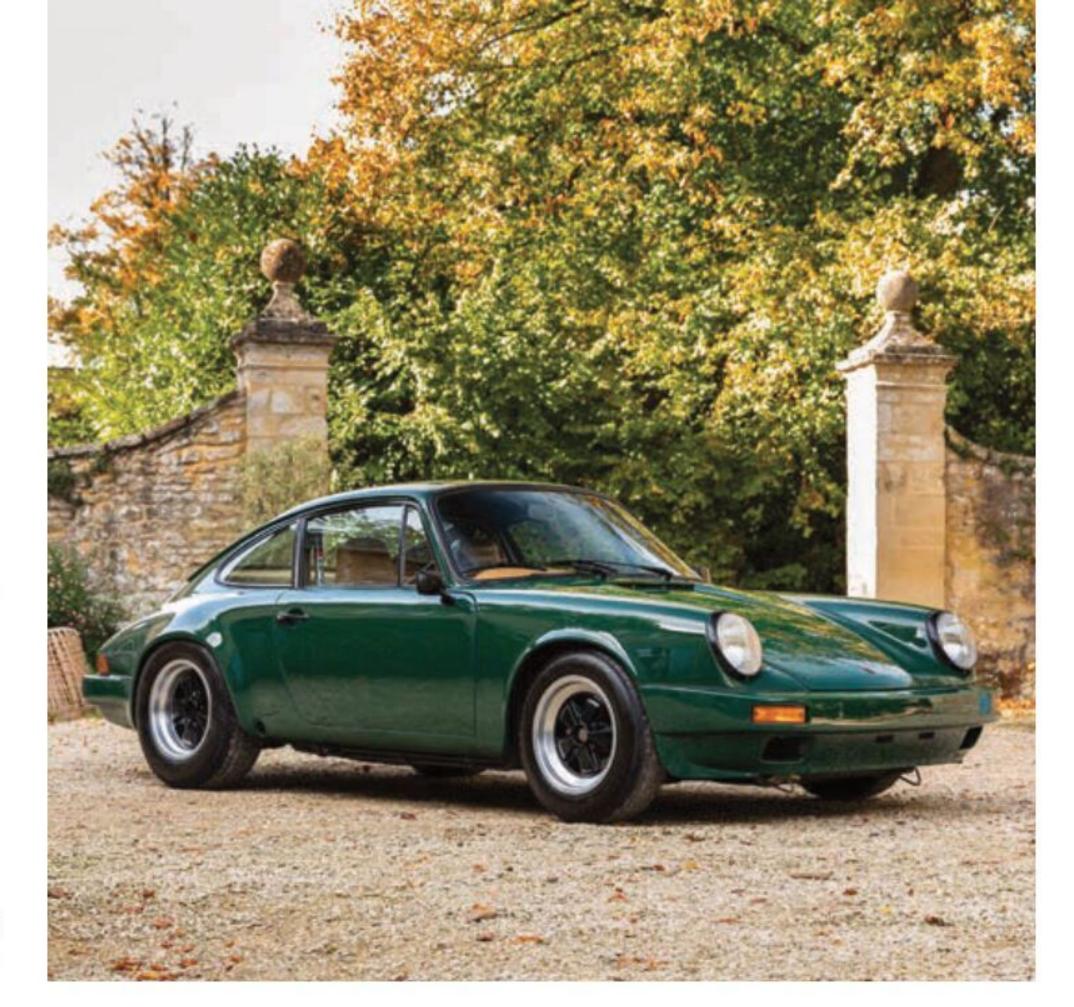
While the immaculate green paintwork looks very much like Porsche Irish Green, it's actually an Italian shade, but suits the car very well. Other SC RS styling touches include black headlight trims and door mirrors.

As you'd expect, all the running gear was either restored or replaced, including all suspension components being re-plated or renewed. New dampers, brake calipers, pads and discs were also fitted. The period Fuchs-style 7J/8J fifteen-inch wheels are booted with Avon historic road tyres boasting a period profile. The car looks all the better for it.

Rather than a stripped out interior, the black and Cork trim was retained and restored, including the leather seats, although in a nod to rallying influences, a new Heigo bolt-in half-cage has been fitted, together with four-point harnesses and a MOMO Prototipo Black Edition steering wheel.

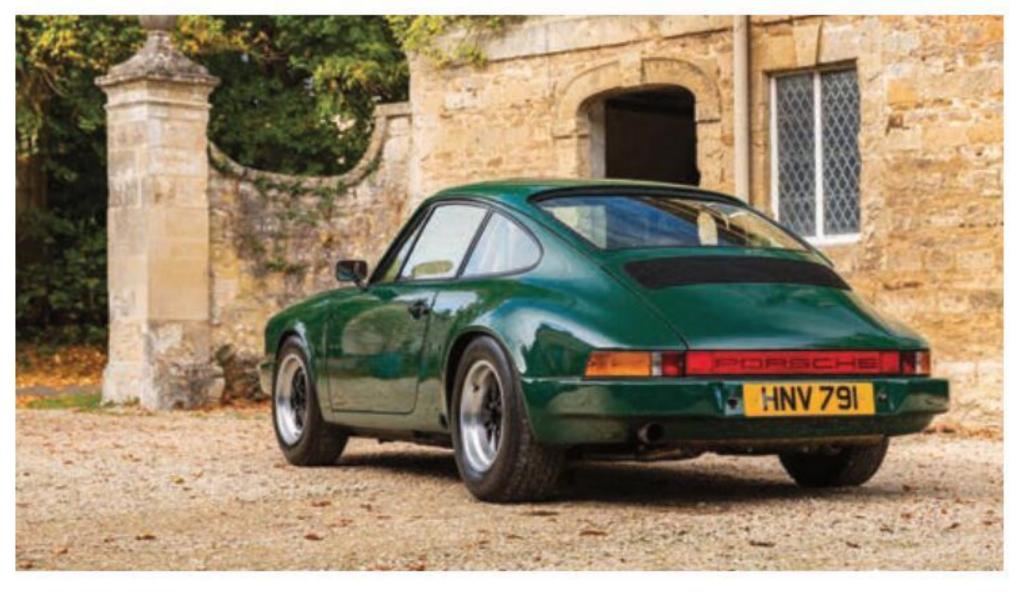
The engine was rebuilt by Wrightune and has been taken out to 3.2 litres, with gas-flowed cylinder heads, 964 cams and throaty Weber 40ID downdraught carbs, plus an SSI exhaust system and a fully programmable 123Tune ignition system. Rolling road figures show power up from the original 180bhp to 236bhp at 5,800rpm with 220lb-ft torque at 4,400rpm. Perhaps more relevant for road use, a solid 200+lb-ft is available between 3,000rpm and 5,600rpm. Power is just where you need it, which is to say there's a strong, tractable mid-range, but the flat-six will also rev out happily beyond 6,000rpm, by which time this little 911 is accelerating at impressive pace. The five-speed gearbox is a delight to use, with the shifting action at the top-end of the 915 experience.

Overall, this SC RS-inspired build is a joy to drive, particularly if you like a 911 that really moves around. With renewed suspension and the narrow, classic body shell, this modified SC makes for an ideal B-road companion. It comes to market within a varied entry of 150 classics at Historics Auctioneers winter sale, to be held at Mercedes-Benz World on Saturday 26th November. Visit historics.co.uk for full details.









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Leading classic Volkswagen parts supplier EMPI Inc. has acquired legendary Porsche specialist brand PMO, from its founder Richard Parr, who is retiring. To reflect PMO's planned product line expansions to include electronic and mechanical fuel injection systems and components; EMPI has renamed the brand PMO Induction to more accurately convey its expertise.

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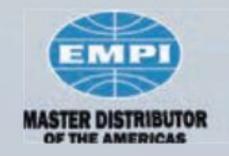




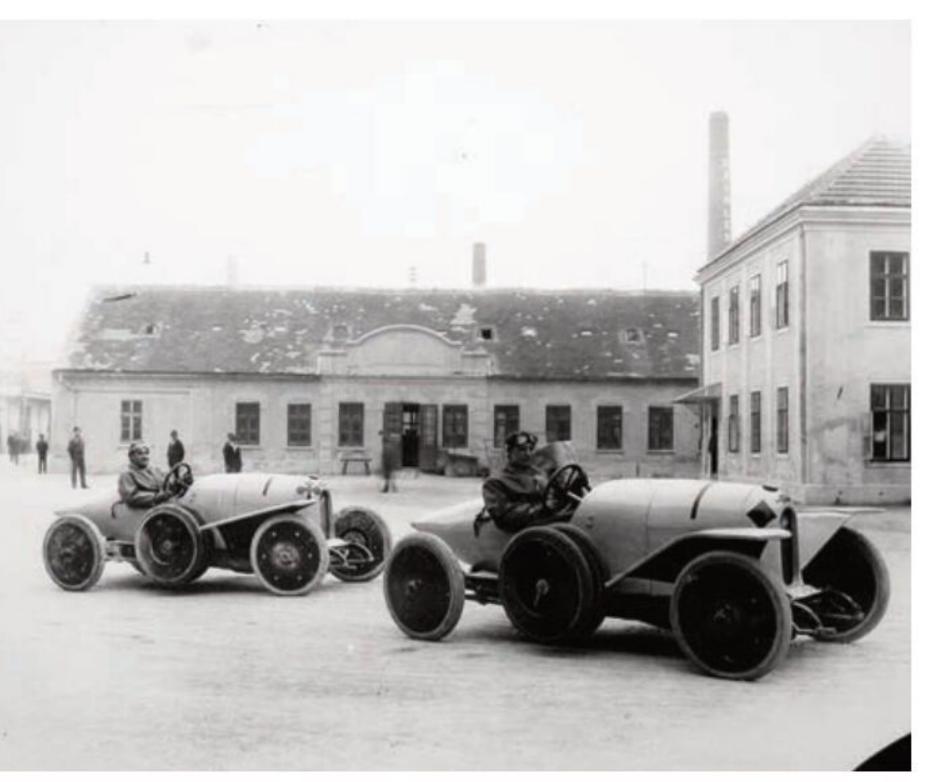














# MUSEUM RESTORATION OF TARGA FLORIO-ENTERED AUSTRO-DAIMLER ADS R

Later in this issue of Classic Porsche, we delve deep into the history of the Austro-Daimler Sascha (designed by Ferdinand Porsche and known as the ADS). In the summer of 1921, work began on a racing version in parallel with the production car project. The racer would be a special variant dubbed ADS R. it shared many of its features with the ADS, but was built with a twin-cam 1.1-litre engine and a lightened frame. The fuel tanks were positioned below the seats. Four cars were entered into the 1922 Targa Florio road race. Only one failed to finish. A hundred years on, technicians working at the Porsche Museum in Stuttgart have just completed restoration work on the ADS R in the manufacturer's possession. A brass plate on the dashboard indicates the car was last restored in Porsche's training workshop in 1975.

"We did some research and discovered the car came into our workshop in the late 1950s. It was subsequently repaired in a contemporary way," speaks a somewhat diplomatic Kuno Werner, supervisor at the Porsche Museum and the man in charge of the restoration. Back in 2021, he and his team set themselves the goal of restoring the ADS R in time for the hundredth anniversary of its Targa Florio appearance.

"Our aspiration was to reconstruct the star of the 1922 Targa Florio in a way worthy of historic preservation, but also to make the car roadworthy," Werner continues. "To rebuild the Sascha from scratch was out of the question, chiefly because on inspection, it became clear so much of the car was no longer original."

Before the start of the restoration, Werner was given the opportunity to pay a visit to one of the ADS R's sister cars, which is in private ownership in Hamburg and in almost original condition. Both Saschas were originally painted red, though the ADS R in Porsche's possession was painted white by museum staff in 1975.

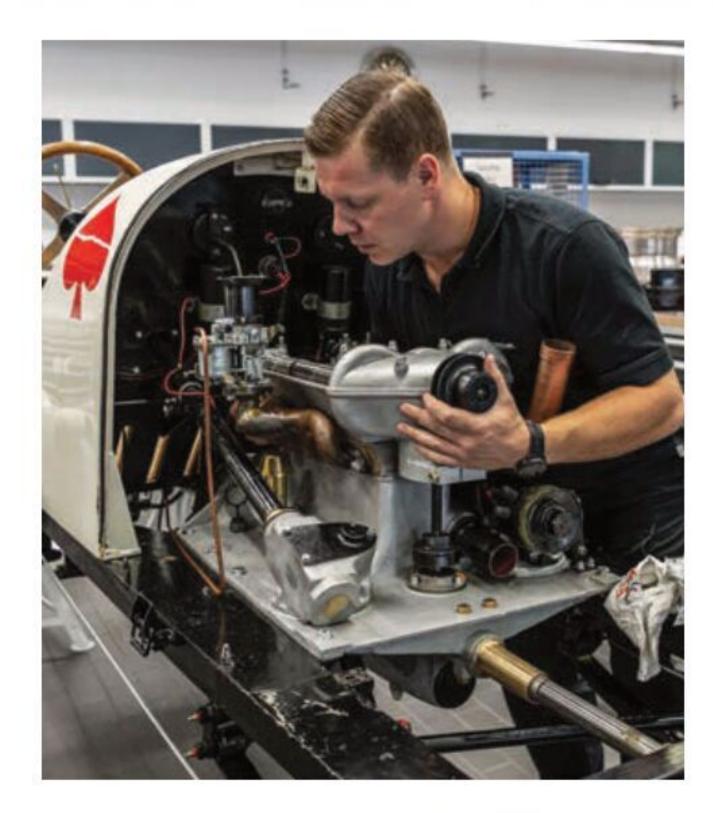
Werner soon pored over old notes in the company archive. He learned the vehicle stood on a farm for years after its racing career and was, to a degree, scavenged for parts.

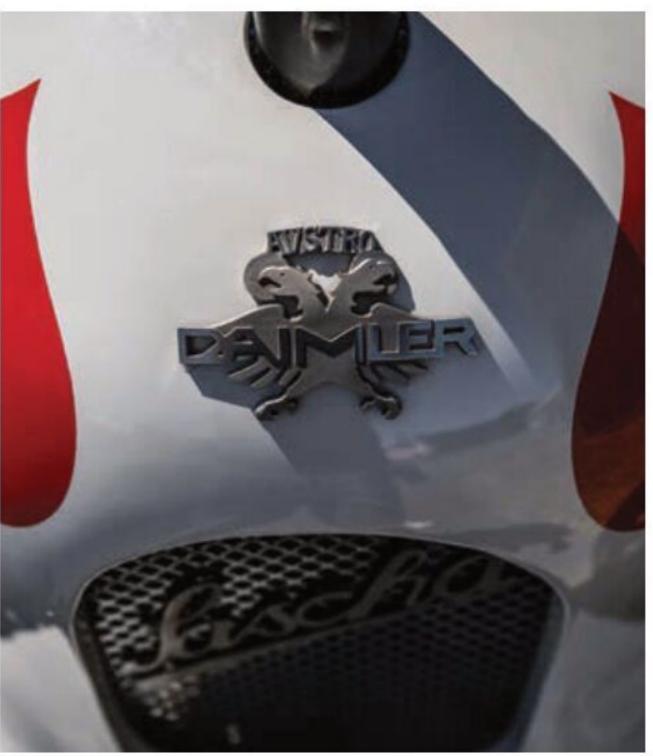
After an initial test run of a few metres, it became apparent the engine was leaking. "The more parts we dismantled, the clearer it became that we needed a proper foundation. After all, you don't build a house on sand," Werner says, explaining the decision to have the four-cylinder motor overhauled by an expert in pre-war engine construction. The key here was to understand what modifications had been made in past decades. "Overhauling the cylinders and fitting them into the original housing was particularly exciting," he adds.

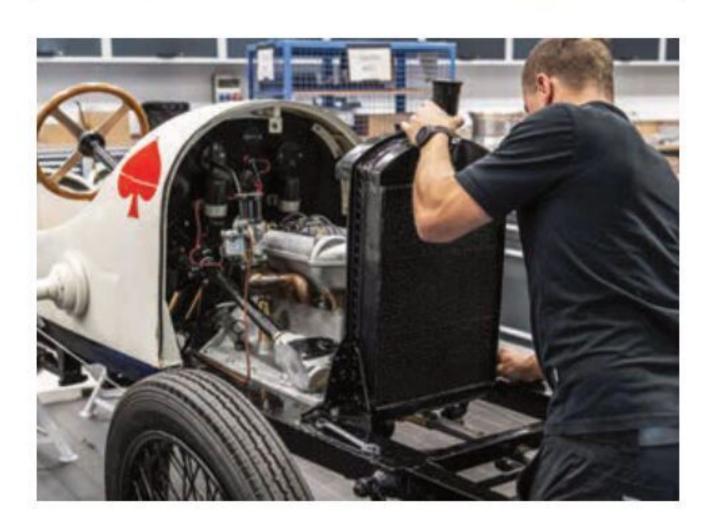
At this point, Werner handed over the restoration of what is one of the oldest vehicles in the Porsche Museum to his youngest employee, Jan Heidak. "I enjoy preserving Porsche's technical and cultural heritage," says the 28-year-old. He sought out former technicians, now pensioners, who were familiar with the engineering practices of yesteryear and were happy to share their insights into the workings of the ADS R.

At the rollout, after more than six months of work, Heidak was finally able to get behind the car's wooden steering wheel. "It's amazingly good for a hundred-year-old vehicle," he tells us, referencing time spent driving the ADS R on the skid pad at the Porsche Development Centre in Weissach. The arrangement of the pedals, which is not the same as it is nowadays, however, took some getting used to — the middle pedal is for accelerating, rather than braking. "The steering forces are high and the steering has no self-centering, but the shift is very good. It works without double declutching up and down, although it feels better if you do. It's like a 356 in this regard."

The restored ADS R will be making 'ready to drive' appearances at Porsche Classic and Porsche Museum events throughout 2023.







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**Price: \$295** 

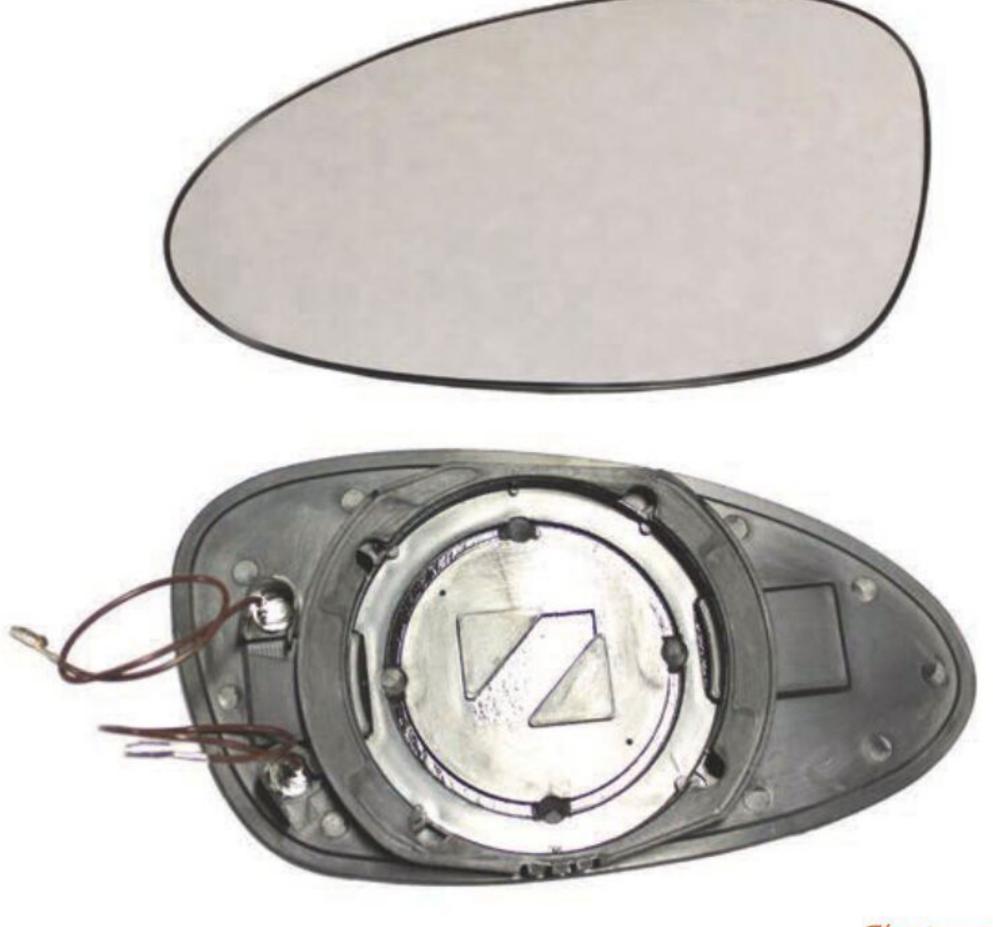
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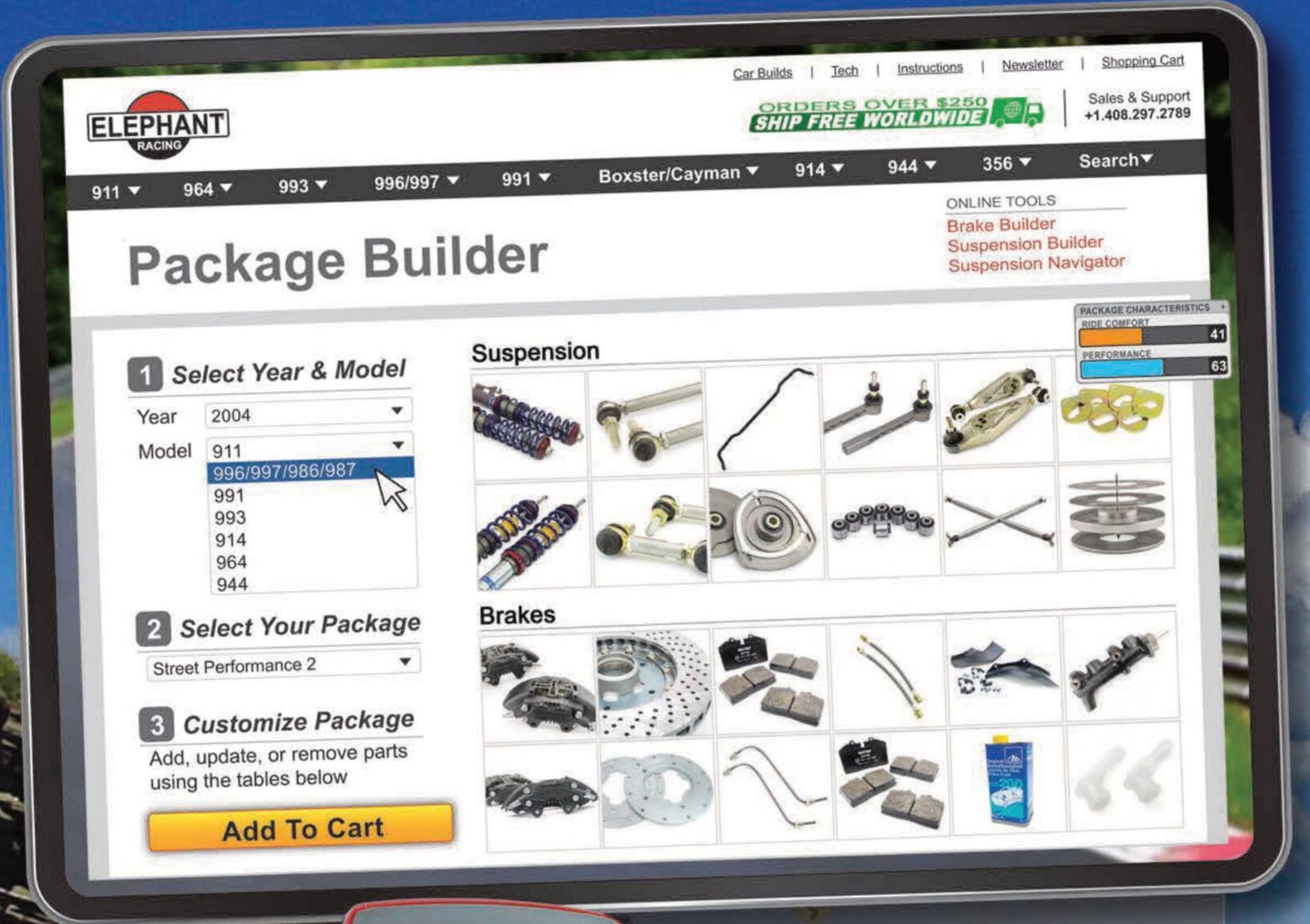
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Price: £47.98

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### **MEGUIAR'S M320 DUAL ACTION POLISHER**

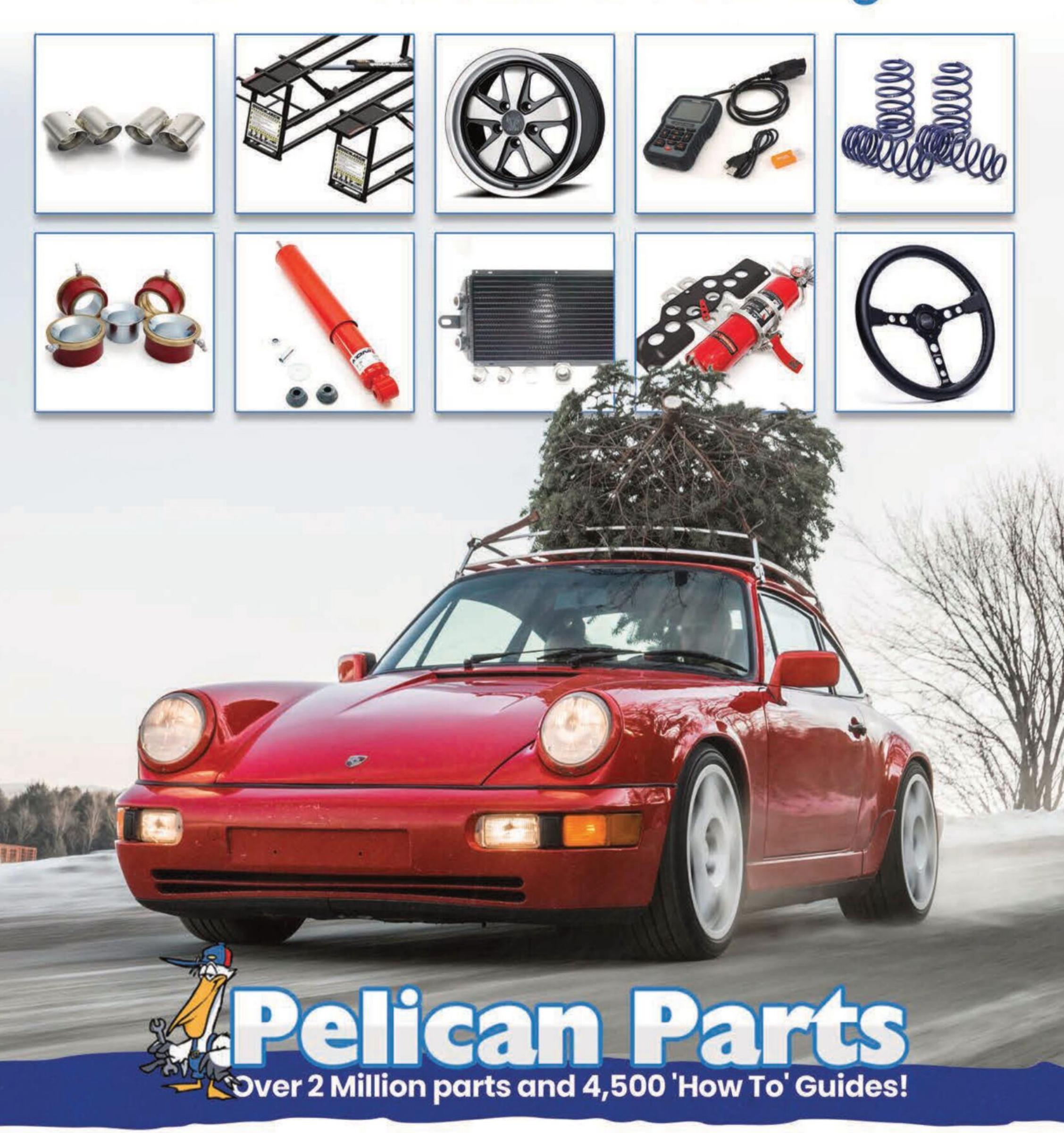
Looking to achieve the ultimate finish for your car's paintwork? It's now easier than ever before thanks to the Meguiar's MT320 dual action polisher. The MT320 has been completely redesigned to achieve the perfect combination of form and function. The end result is a dual action polisher which allows users of all skill levels to create a show car finish from the comfort of their home. The all-new outer casing and thumb-adjustable speed dial have been designed for a more ergonomic feel, the latter providing speed adjustment between 3,000 and 7,500 oscillations per minute for faster compounding, superior final polishing and easier waxing. Inside, the MT320 boasts a newly developed digital torque management system electronically regulating and maintaining torque and speed during use. This ensures you get the best possible finish every time. A new billet counterweight design means the MT320 is smooth to use and perfectly balanced, while its soft start function provides easy control when the tool initially powers up. Reassuringly, the MT320 can be used with ease on all paint types without training and can be used with an extensive selection of Meguiar's Enthusiast, Detailer and Mirror Glaze products. Supplied with a replacement brush set, tough carry bag, multi-position D-handle, a five-inch backing plate, a matching foam disc for cutting, another for polishing and a third for finishing, this competitively priced kit provides all the tools you need for each stage of polishing.

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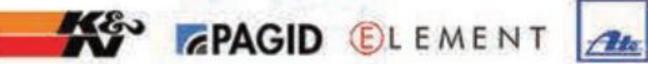












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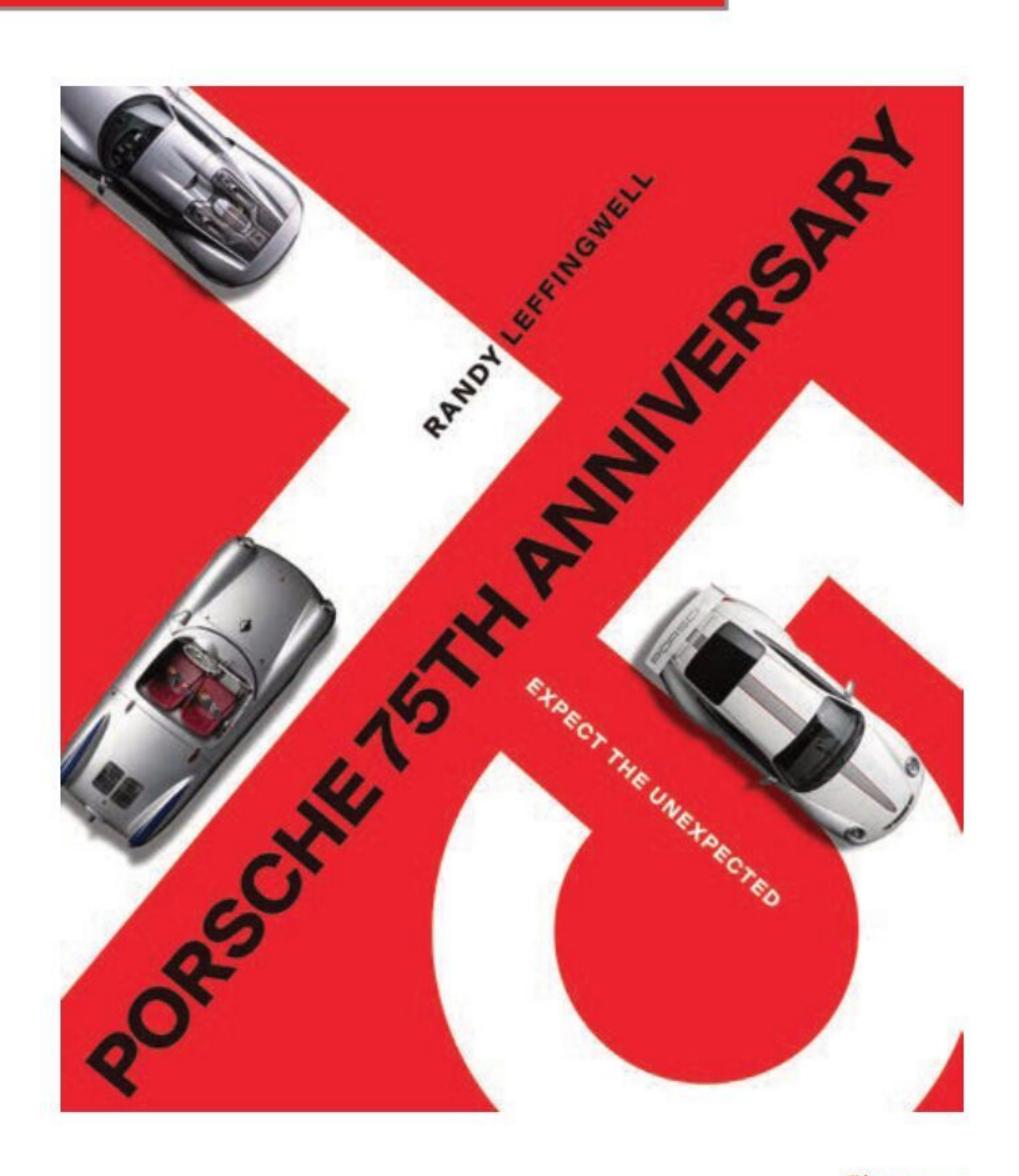


# PORSCHE 75TH ANNIVERSARY BOOK: EXPECT THE UNEXPECTED (AUTHORED BY RANDY LEFFINGWELL)

Such is the rate at which former Los Angeles Times correspondent, Randy Leffingwell, produces automotive books, we're convinced he never sleeps. Even with more than fifty coffee table tomes to his name, the Santa Barbara petrolhead shows no sign of slowing down, as demonstrated by the release of Porsche 75th Anniversary: Expect the Unexpected, a 256-page hardback (25.4x3.18x31.12cm) recounting the full story of our favourite manufacturer through a richly illustrated account of Zuffenhausen's most surprising moves and successes. Rare images from Porsche's own archive are punctuated with quotes and observations from key factory personnel. This is a thorough, compelling and revealing look at one of the world's premier car makers, and includes a foreword from former Porsche works driver, Hurley Haywood. Created with Porsche's cooperation, Leffingwell's book offers something for all marque enthusiasts, whether they're air-cooled loyalists, motorsport fans or followers of contemporary Porsche products, including the Cayman, Boxster, Macan and Taycan. Porsche 75th Anniversary: Expect the Unexpected hits bookstores on the 22nd November, but pre-orders attracting a discounted purchase price are now open through Amazon.

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YEAR

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YEAR

1965-70/2

1965-70/2

1965-70/2

1965-70/2

MODEL

912

912

912

912

LOCATION	MODEL	ENGINE	YEAR
Front/left	911	2.0	1963-68/8
Front/right	911	2.0	1963-68/8
Rear/left	911	2.0	1963-68/8
Rear/right	911	2.0	1963-68/8
Rear/left	911	2.2-3.0*	1969/8-83/7
Rear/right	911	2.2-3.0*	1969/8-83/7
Front/left	911	2.7-3.0	1974-83
Front/right	911	2.7-3.0	1974-83
Front/left	911	3.2	1984-89
Front/right	911	3.2	1984-89
Rear/left	911	3.2	1984-89
Rear/right	911	3.2	1984-89





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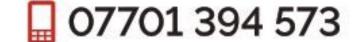




TP Ersatzteile, Niederkasseler Strasse 3e, 51147 Cologne, Germany

**+49 228 971 46 90** 

For all UK enquiries please contact PATRICK CARR 🔲 07701 394 573 🔯 p.carr@tpersatzteile.de

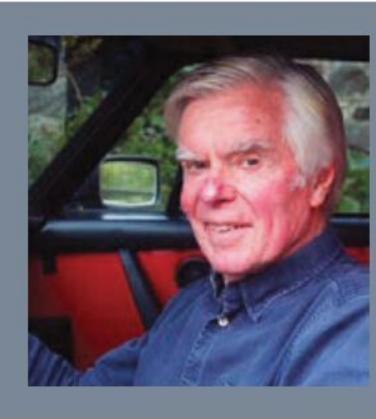




### **CLIVE HOSKINS**

In late 1950, the first Porsche sports cars arrived Stateside, marking the beginning of a success story reaching epic heights. While we look ahead to the brand's continued prosperity in North America, there are many milestones to celebrate across more than seventy years of extraordinary sales growth...

Clive Hoskins is a retired former Engineering and Procurement Manager with Imerys, an international minerals production and processing company. Formerly based in the USA, he now lives in the UK with his 911 SC.



It was autumn 1950 when a fateful meeting between Ferdinand 'Ferry' Porsche and New York-based European sports car importer, Max Hoffman, led to the decision a fledgling German automotive manufacturer from humble beginnings would begin exporting its sports cars to America. The result was the creation of a bond stronger than anybody could have imagined, with the USA quickly becoming Porsche's most successful trading market. Things are different now, of course. The massive success of the Cayenne and Macan in East Asia has seen China eclipse the USA as Porsche's most successful sales territory, but the company's ties with America run deeper than the shifting of product — many landmarks in the Porsche story are inextricably linked with the country.

In the early 1990s, when I worked in the USA, I attended an event celebrating the fortieth anniversary of the first official Porsche motorsport

to set off on my journey after finishing up in the office (it seemed almost everyone else attending the event had made a long weekend of it!). Sadly, I arrived late, but I managed to get to the event in time to see Hurley Haywood speak at the evening reception. He'd finished in first place overall at the 24 Hours of Daytona five times and twice achieved the same result at the 24 Hours of Le Mans. A year later, he'd complete the hat-trick, winning at Sarthe once more, this time with the controversial Dauer 962. Needless to say, his talk to those of us in attendance entertained and inspired in equal measure.

Most of Haywood's career was spent campaigning air-cooled 911s, but he also drove a 936, 935, 956, 962 and even a 914/6, the latter for Brumos at Daytona in 1971. Historic racing aside, he'd end his time in endurance racing events behind the wheel of a Brumos 997 GT3 Cup in 2012. Haywood and Brumos had a long and fruitful working relationship for many decades, the pairing achieving great things with Porsches at the race track. It was fitting







entry in North America. The race took place in Albany, Georgia, in 1953. The event I attended on September 25th 1993 was organised by Porsche Club of America and included a gathering of rare examples of the marque, as well as speed tests and a convoy drive around the city of Albany.

Brumos, the Jacksonville-based Porsche dealer and legendary race team, was in attendance and exhibited stunning cars, including an original 550 Spyder. This particular example, chassis 550-0030, was one of the Porsche works team's mules and first competed in the 1955 Grand Prix of Venezuela. Porsche's director of motorsport, Fritz Huschke von Hanstein, drove the

car to an eighth place finish against much bigger and more powerful racing machinery.
The car was thought lost until 1963, when, quite amazingly, Juan Montalvo of Belle Glade, Florida, traded it for a pick-up

# I WAS THRILLED TO BRING MY CAR TO THE EVENT AND HAVE IT IN SUCH GOOD COMPANY

truck. Brumos man, Bill Binker, bought the open-top Porsche in 1964 and raced it throughout the rest of the decade.

Not long before the Albany meet in 1993, I bought a 1981 911 SC Sport and, having joined the club, was thrilled to bring my car to the event and have it in such good company. I drove from Middle Georgia down to Albany, a trip of approximately two hours, traffic permitting. Time was tight because I had

the Florida firm brought some of its cars to the event he was speaking at.

The drive around Albany was also hugely enjoyable. I recall a long line of Porsches, many of them drop-tops, the sun shining, everybody happy. What's not to like?! I'm reminded of this experience today, some twenty-nine years later. When stepping inside the very same 911 SC Sport (the car followed me to the UK) and settling into its Can Can red leather interior, memories of that fantastic event come flooding back.

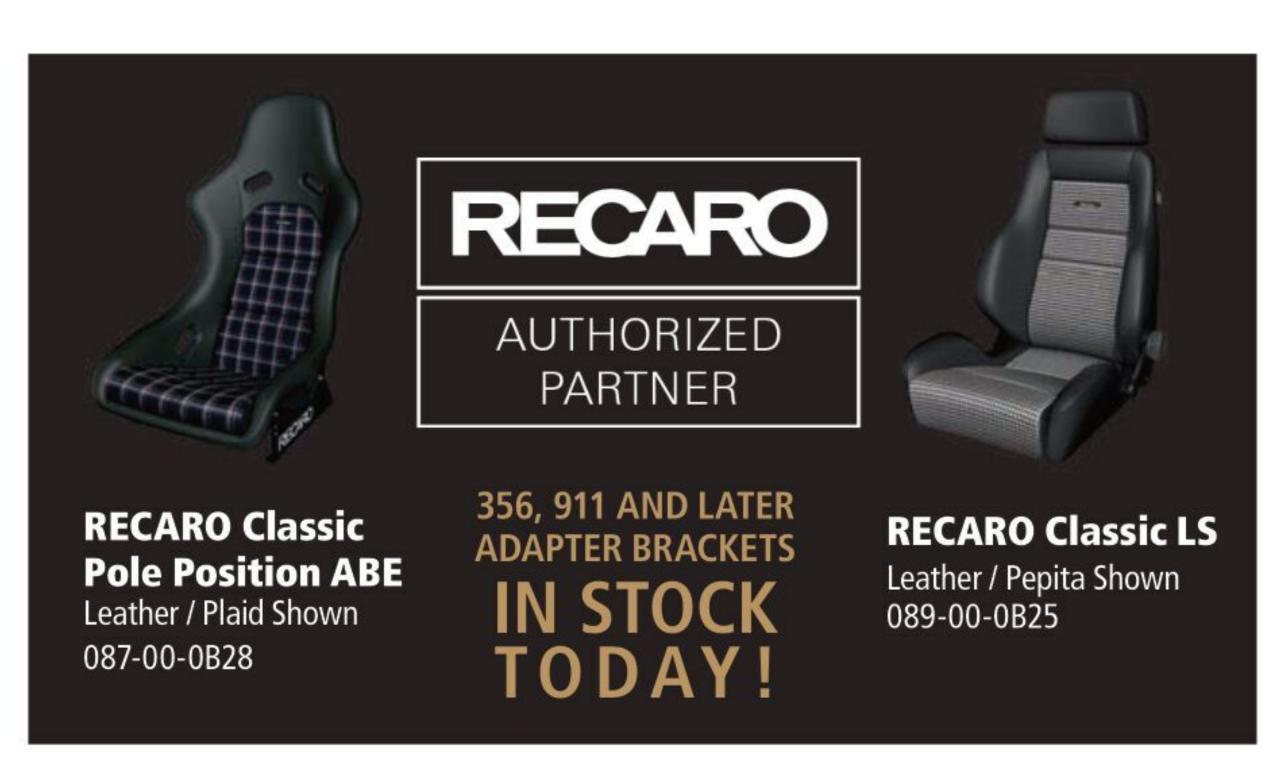
According to the excellent book, *Huschke von Hanstein* (by author, Tobias Aichele), the German race ace, Karl Kling, as well as Herbert Linge (serving

as mechanic) and Huschke
von Hanstein himself, travelled
to New York in 1953, collected
two 550 Spyders and then
drove them by trailer to
Georgia, where they completed
Porsche's first official race on

American soil. The book suggests the cars were then transported to Mexico City in preparation for the 1953 Carrera Panamericana, where Kling would retire with driveshaft failure. The other works entry, driven by Hans Hermann, would also fail to finish, suffering a broken steering arm. Thankfully, there were no dramas in Albany four decades later — for all the right reasons, it's a day in the United States I'll never forget.



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## **ALEX MANOS**

In the aftermath of global conflict, the world made great strides in moving forward, both economically and culturally, as demonstrated by the birth of rock and roll, as well as the arrival of Porsche on the world stage as a manufacturer of its own sports cars. Few could have predicted the enduring success of the either...

Alex Manos is owner of Beverly Hills Car Club, sourcing and selling some of the world's most beautiful and unique vintage automobiles, including a wide range of aircooled Porsches. View the firm's inventory at beverlyhillscarclub.com



he 356 Speedster was as culturally awakening as the arrival of Elvis Presley, whose first record came out in July 1954, two months before the Speedster's launch in September that year. It was a time of great change, several steps forward from the grey ashes of the Second World War, a conflict which continued to cast a giant shadow over the world. Figureheads of contemporary popular lifestyle soon fell in love with Porsche's output. Hollywood actor, James Dean, led the way, followed by Porschephiles, Steve McQueen and Janis Joplin, among others. Indeed, a succession of high-profile celebrities fell in love with the Speedster's rolling looks and gorgeous drive. Needless to say, the open-top Porsche was a hit from the moment it was launched at the Frankfurt Motor Show in readiness for the 1955 model year. Today, the original Speedster is regarded as one of the most significant sports cars of all time.

Reutter. Everything was structured around the Speedster's steel body. The car went on the market at \$2,995, knocking a quarter off the price of the America Roadster. Roof off, and the sublime handling of this lightweight, high-powered driving machine was considered ideal for motoring in sunny California, as sales would soon attest.

Meanwhile, Porsche production had moved in 1954 to new facilities named Werk II, though in truth, it was the former Reutter building, which Porsche had recently acquired. In late 1955, an 'improved' 356 Type A 1500 Roadster appeared in showrooms. This featured a higher-compression 1,582cc four-cylinder engine, better suspension and wider tyres than what came before. With a top speed of 99mph, the new Speedster could cover the sprint from rest to 60mph in 13.9 seconds. This was when the legend of the 356 Speedster was utterly set in stone.

As mentioned in previous issues of Classic Porsche, here at Beverly





**CONSIDERED IDEAL FOR CALIFORNIA** 



The Speedster's commercial success was especially notable in the light of the lack of fiscal oomph garnered by 1952's preceding 356 America Roadster. One cause of that model's relative failure in the market had been an inability on the part of Porsche to engage an appropriate coachbuilder Heuer had underestimated the cost of building bodies for Porsche. In his bid for the job, Erich Heuer had reckoned five-hundred hours for each 356. As discovered, it was taking six-hundred and forty hours. As a result, he was losing money, not only on the Roadster — at a rate of DM1,600 per car but also on 356 cabriolet bodies. Unable to obtain bank support, Heuer

declared itself bankrupt after just sixteen Roadsters were completed. Efforts to shift the model to a new coachbuilder failed when Reutter declined to work with bodies in aluminium.

All the same, Max Hoffman,

the legendary Austrian-born, New York-based distributor of Porsche (and other classic European marques) in the United States, believed a lowerpriced 356 emphasising sporty, track oriented features, could strike a dent in the American market. Stripping the America Roadster to its bare essentials, the resulting 356 had a foldable roof, a raked windshield and all luxurious add-ons removed, with stripped-out interiors fashioned by

Hills Car Club, I've acquired a very fine example of an early Speedster. It is a beautifully restored 1956 356 Pre-A 1500 S model with a matching numbers engine and is finished in striking Signal Red with a black interior. Although at some point in the car's life the transmission has been replaced, this sensational Porsche comes equipped with a four-speed manual gearbox, a smooth-running boxer, dual carburettors, its numbers-matching deck lid and hood, soft top, steel wheels, chrome hub caps, spare tyre, tool kit and jack. Also included is a Certificate of Authenticity from Porsche, as well as a receipt for a major service (at a cost of \$2,176) carried out

in 2021. This is obviously an excellent opportunity to THE SUBLIME HANDLING OF THIS jump into the ownership of LIGHTWEIGHT DRIVING MACHINE WAS a mechanically sound early Porsche. Give me a call.

> Undoubtedly, the original Speedster went far in

Hoffman's enthusiasm for the Speedster concept, Porsche sales in the USA tagged up at 3,624 units, exactly half the total global sales of the 356 that year. Nothing like the figures for records sold by Elvis Presley, of course!



# ONE MAN'S DREAM...



# DELVERED

**BESPOKE BUILD 1972 SPEC PORSCHE 911 CLUB SPORT** 

As featured in this issue. Now available at Hairpin.





# ARCHITECTURE OF AGGRESSION

Making use of a 3.5-litre oversized flat-six and weighing little more than a metric tonne, this superbly reimagined 911 SC hints at what an F-series GT3 might have been like...

Words Dan Furr Photography Dan Sherwood







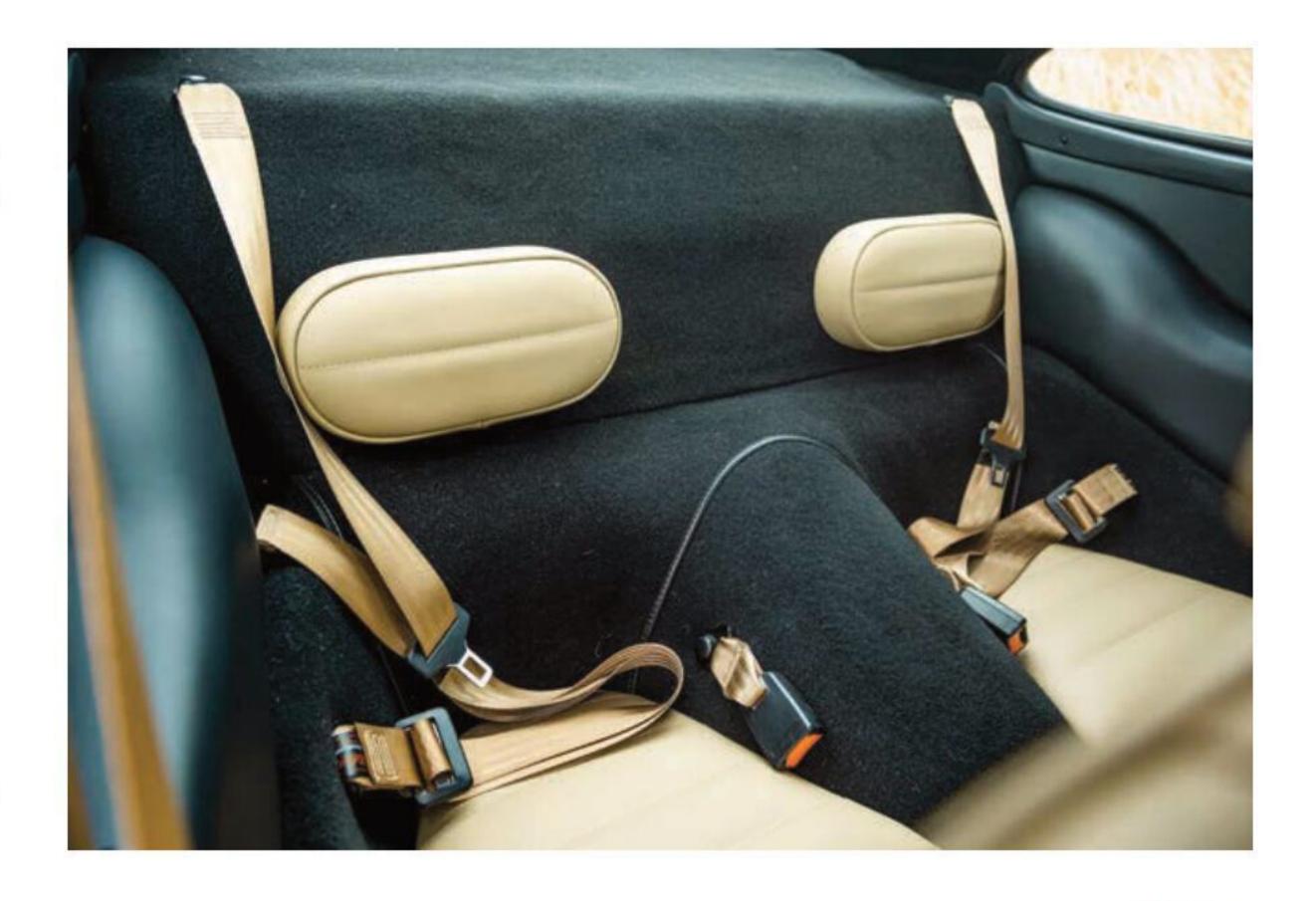
ew Porsche projects led by individual owners carry the level of focus and narrative as the beautiful blue 911 you see on the pages before you. The car's unique identity is the work of Craig Sheach, an award-winning architect who has approached the reimagining of what was once a gold-coloured 1982 911 SC by drawing on the principles of design he adopts when developing ideas and feeding them into projects in his professional life. As I am about to discover, the attention to detail — with particular emphasis on sense of touch — invested in this extraordinary air-cooled restomod has resulted in a 911 so perfectly put together even seasoned Porschephiles might confuse it with a factory build.

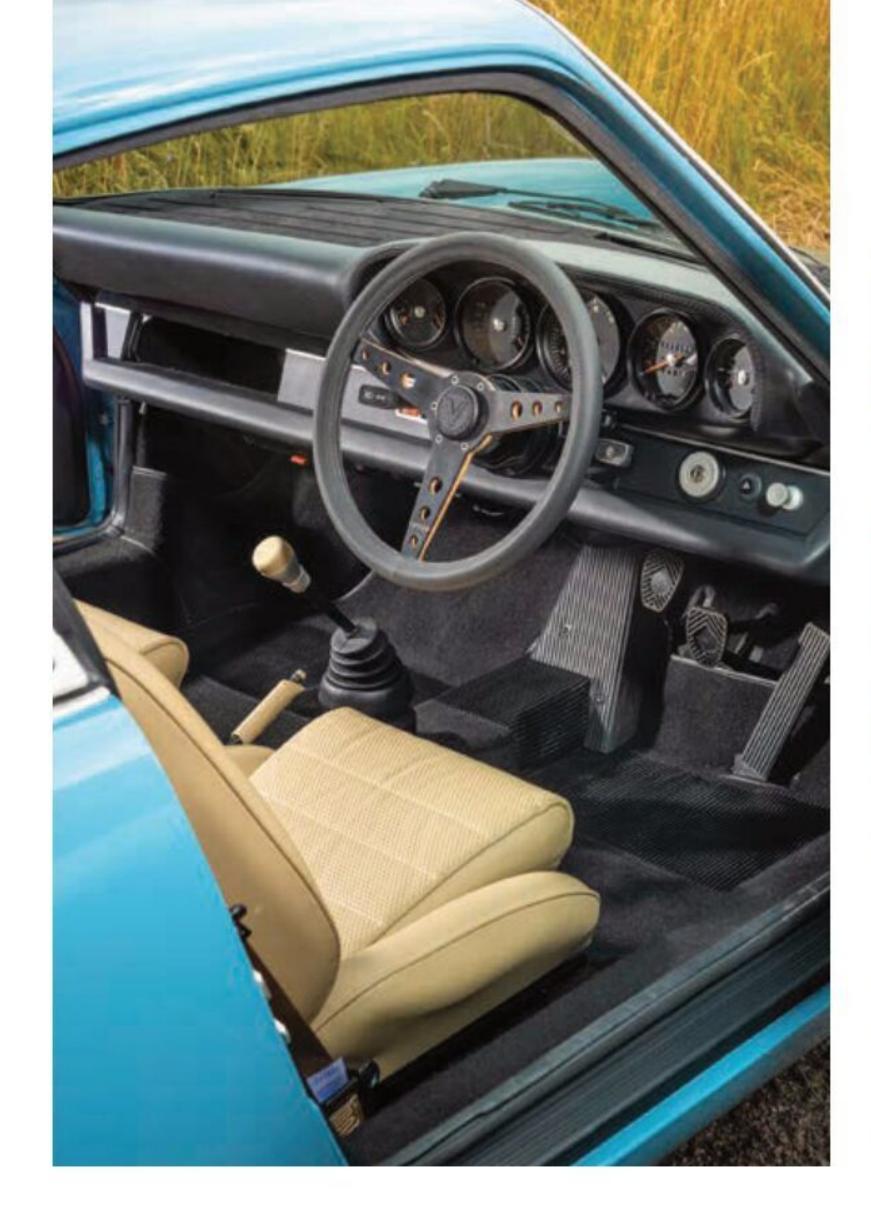
Wind back the clocks, and Craig was the proud owner of a concours 993 Carrera S restored by Porsche Centre Swindon, one of the UK's five Porsche Classic Partner centres. A rare 1996 Vesuvio Edition, the car was immaculate in every respect and had covered just 68,000 miles from new. "It was perfect," Craig reminisces. "Too perfect, in fact." He tells me he felt anxious driving the car, not because he doubted the quality of work carried out during the restoration, but because he's a proper petrolhead who likes to add plenty of miles to the vehicles he owns. "I feared devaluing the car through the simple act of using it," he shrugs. With this in mind, the purple-hued 993 — thought to be one of only a hundred of its kind - was sold and Craig's thoughts turned to building a bespoke air-cooled 911 capable of covering huge distance without inflicting on him a sense of guilt every time the scoreboard increased by a digit.

"My love of design goes much further than my job as an architect," he continues. "It's in my bones, which is why I relished the opportunity to take a standard 911 and develop it into a custom build in keeping with my aesthetic preferences and driving style. In essence, I wanted to create a highly personalised air-cooled Porsche I could drive long distance as a GT car, have fun blasting around B-roads and enjoy cruising in comfort when commuting, all without worrying about the number of miles covered." Inspiration came from the output of Workshop 5001, a Los Angeles-based company specialising in the creation of unique café racer-styled air-cooled Porsches, though as Craig's project got underway, it quickly became apparent his 911 would have character all of its own.

The donor car came from a marque enthusiast building one of the UK's best privately owned portfolio of Porsches, an assemblage including a 959, Carrera GT and 918 Spyder, collectively considered the 'Holy Trinity' of Zuffenhausen's sports cars. "I was determined to use a 911 equipped with a Type 915 gearbox as the starting point for the project," Craig reveals. "I wanted the transmission to give me the feel of a Porsche manufactured in the 1970s, but dialled up a notch. Granted, the 915 is slightly slower than the later Getrag G50, which boasts more methodical and finessed shifting, but the 915 gives you the opportunity to feel the mechanicals at work when you switch between cogs. Slight resistances out of gear, a purposeful shift across

Above Four different tyre sizes were considered before work could begin on the body, including subtly updating it with pulled and flared arches







Above and below Ash-backed Tactico Viceroy steering wheel is one of only fifty-nine examples manufactured

and a little friction as you ease into the next ratio — the 915 delivers a sense of theatre lost with the G50."

The car was immediately handed to Alan Drayson, founder of Dorset-based classic Porsche restoration specialist, Canford Classics, who Craig had every faith would be able to engage with him in creative and supportive fashion from the off. "I'd visited the company five years earlier and saw various projects in progress. I was struck by the quality of workmanship and how Alan, despite being head of the business, is very much hands-on with each of the restorations rolling out of the Canford Classics workshop." Since Craig's initial visit, the firm has expanded its operations to ensure every stage of the restoration process, from bodywork to mechanicals to trimming, is carried out in-house, allowing full control over every step of a project.

With no preconceived ideas regarding the finished 911 he would be tasked with producing, Alan evaluated the twenty examples Craig had compiled in a PowerPoint presentation. Ranging from stock specification to full-blown motorsport machines, the gallery led the pair of to

conclude a reimagined SC serving as ninety percent road car with ten percent track focus was the best direction for the project to head in. A Carrera 3.2 Clubsport would, perhaps, be the nearest 911 legacy model to what the pair had in mind, but Craig's love of F-series styling, plus a desire to remove absolutely anything from the car not directly benefiting the driving experience, saw the creation of a plan of action resulting in a far more potent Porsche. It's certainly more sophisticated, controlled and communicative than a Clubsport. Eschewing the motorsport theme also ensured the development of a 911 not compromised for the road.

### **NARROW YOUR CHOICES**

"I didn't want an ST replica and I didn't want a widebody 911," Craig confirms. "To my mind, comparatively subtle styling with many bespoke elements would be crucial to the success of the project." Two years on from the beginning of the car's transformation into the whitewheeled wonder you see here, it's safe to consider the end result a case of 'mission accomplished'.

Before we find out what this 911 is like on the road, let's take a look at the detail. Of course, at the heart of the build is the engine, which has been rebuilt and oversized to 3.5 litres of displacement. Alan offered Craig the option of a four-litre flat-six, but with the promise of a sprint to 60mph and 100bhp per litre, he deemed the short stroke, twin-plug 3.5 perfectly adequate for his needs. Peaking at 350bhp on the count of 7,200rpm and producing a useful 287lb-ft at 4,800rpm, the punchy boxer's redline is set at 7,800rpm.

The key ingredients comprise 102mm Nickies barrels, 10.5:1 J&E pistons from LN Engineering, Carillo connecting rods, a Carrera 3.2 oil pump, Borla EFI throttle bodies, K&N air filters, a lightweight flywheel, Magnecor ignition leads, a hundred-litre fuel tank, ARP fasteners and a Sytec adjustable fuel pressure regulator. Fuelling is managed by a DTA standalone ECU, while a bespoke handmade twin-outlet exhaust promotes better gas flow. The standard heating system is replaced by a Webasto



heater located at the front of the car, its position intended to further improve weight distribution. Meanwhile, the fully rebuilt 915 gearbox benefits from a competition clutch, a 911 Turbo (930) sideplate and a Quaife ATB limited-slip differential.

Every suspension component has been replaced or refurbished, including the Bilstein dampers. The same treatment was applied to the braking system, which not only makes use of a new master cylinder, spreaders, bows, handbrake elements, DOT 5.1 race fluid, pipes, tubes and lines, but also new Carbon 12 RSR six-piston (front) and four-piston (rear) calipers loaded with 300mm

and 290mm discs respectively. The rotors are clamped by Ferodo fast-road pads. There's no ABS and no servo, but all told, this is an immense amount of stopping power

# THE DESIGN CAUGHT THE EYE OF SUNG KANG, BEST KNOWN FOR PLAYING THE CHARACTER, HAN, IN THE FAST & FURIOUS MOVIES

for a 911 weighing just 1,002kg with all fluids and a quarter-tank of fuel. The anchors are difficult to spot mind, hidden as they are behind those staggered Fuchs cloverleaf wheels and fat Avon CR6ZZ tyres.

"We tried four different tyre combinations before settling on the Avons," Craig tells me, pointing out the 185/70 and 225/65 profiles at play. Indeed, the desire for an aggressive stance and huge road-holding through fat, sticky rubber would have been easier to achieve with a widebody build, but his determination to keep a narrow-shell profile meant bodywork couldn't begin until the choice of tyre was settled. "Both rear arches are now bespoke," Craig highlights. "They've been trimmed

and slightly pulled to create more of a flare, not only to accommodate the tyres, but also to give the car more of its own identity."

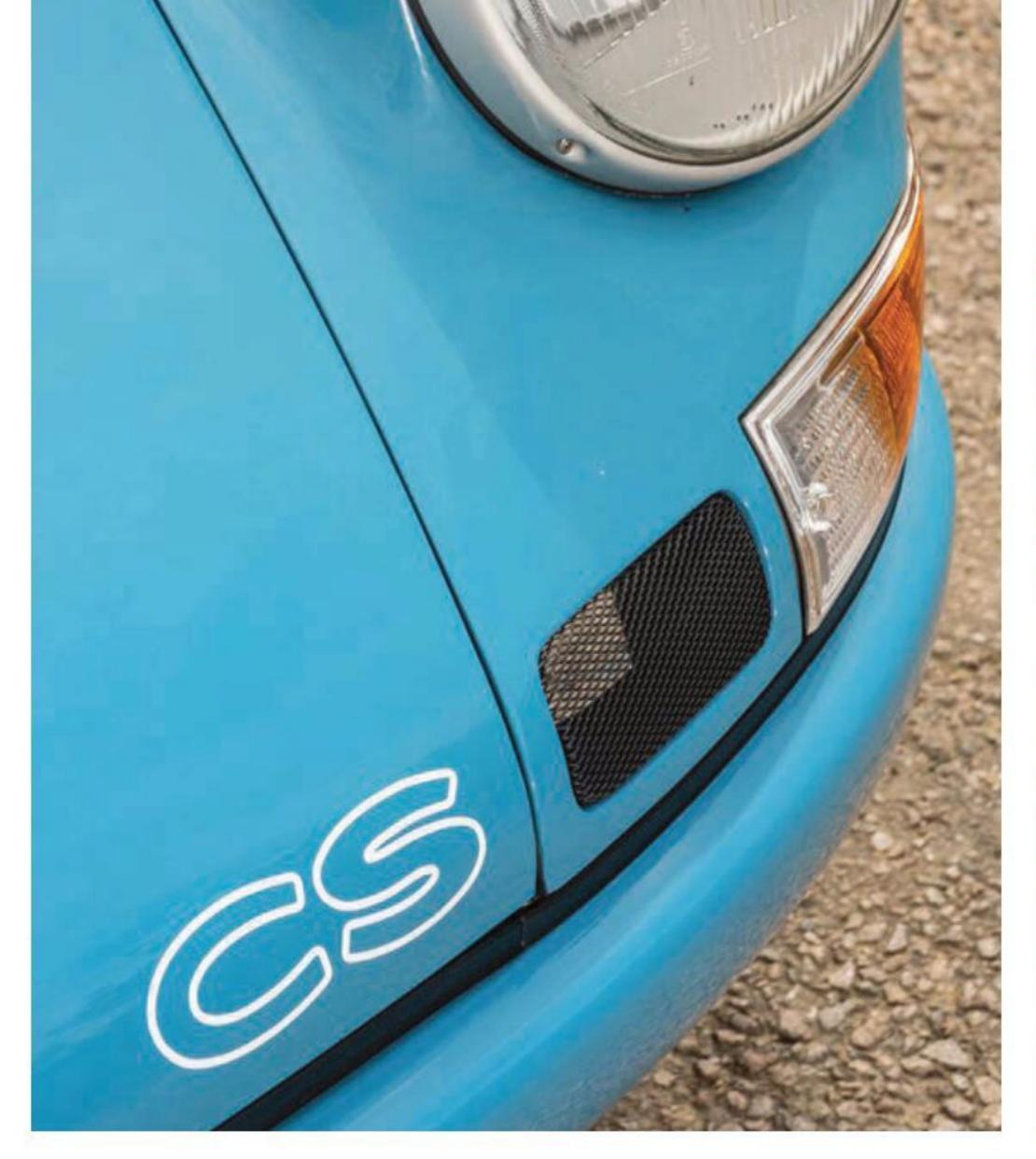
Alan and his team blasted the body shell and all panels to bare metal before the intensive process of reassembly, which was executed with a high number of custom touches. The roof, for example, got the expected sunroof delete, but now carries a bespoke hand-shaped curve to emphasise the coupe profile, bolstered by the shaving and rounding of rain gutters. Four days were spent crafting the custom horn grilles. Here, the devil really is in the detail — the width of the metal surrounding the

subtle black mesh inserts precisely matches the height of the custom splitter at the base of the bespoke front bumper, which the artisans at Canford Classics fabricated

from steel. The slam panel, catch and latch were also handmade by the Canford crew. At the other end of the car resides a lightweight fibreglass ST-style rear bumper reshaped to follow the profile of the exaggerated rear wheel arches. An original 1972 911 S aluminium deck lid has also been fitted. As you'd expect, the underside of the car was fully protected with underseal (3M sealer, in this instance) prior to paint.

It's easy enough to fit different wheels or engine lids when attempting to determine the look of a personalised 911. Less straightforward is choosing a colour for the body. Obviously, it's an expensive mistake to make — no matter how hard you try to imagine what the finish might

**Above** 3.5-litre twin-plug flat-six delivers 100bhp per litre and is managed by a standalone DTA ECU









**Above** Custom horn grilles took days to perfect, but were well worth the wait

Right Twenty-six different colours were considered before Craig settled on a Glasurit shade of blue

look like, unless you have access to a real-world example of a similar car wearing the same shade, it's virtually impossible to know how the finished article will present until you see the it in the metal, at which point it's likely too late to change your mind. Even trying to mock up a Photoshop-authored image of your dream machine can present a misleading representation of the real deal. Imagine, then, Craig's nervousness when he decided to pick a non-Porsche colour for his revitalised 911, but couldn't decide between twenty-six (yes, you read that

"Alan sprayed all of them to test panels for me to consider!" he recalls. The rich, solid blue he settled on is from the Glasurit colour catalogue and is perfectly in keeping with the bold, striking paintwork Porsche applied to its cars in the early 1970s. Deep lacquer and a ceramic coating gives the colour its glossy appearance, but only intersecting bodywork has been treated to this stunning finish — the engine bay and interior were painted black, while the door handles, screen inserts, headlight

correctly) different mixes.

surrounds, window frames and mirror cases have been treated to Cerakote, a thin-film protective ceramic formula promising durability, hardness and resistance to scratching. "As an architect, I introduce touch points to each of my designs," Craig explains. "Physical contact and the sensation it produces is vitally important in developing relationships with buildings, but the same is true of cars. For this reason, every one of my 911's contact areas possess a textured finish."

### **MOVIE MAGIC**

Door handles trump only the steering wheel when it comes to parts most touched on a car. Craig has gone all out on the latter, investing in a Tactico Racing Atelier Viceroy, one of just fifty-nine examples manufactured. Penned by graphic designer, Glenn Cordle, the design caught the eye of Sung Kang, best known for playing the character, Han, in the Fast & Furious movies. Kang helped bring the design to reality exclusively for Tactico. Fitted to a removable boss ("allowing me to remain engaged with the car even when I'm not with it") and individually numbered, the wheel is 380mm in diameter, allowing clear view of the dash gauges in classic Porsche fashion – the same size steering wheel was adopted by the Stuttgart squad in the early 1970s, including during production of the Carrera RS 2.7. A laminated white ash back provides warmth and gives the Viceroy a unique look when viewed from different angles, while the rim is trimmed in full-grain Italian leather with white stitching.

This isn't the only part with 'wow factor' in the car's cabin. Cerakote continues to be felt (literally) on all door furniture, internal switches (made from turned and milled aluminium), the ignition surround and the base of the bespoke gear knob, which is topped with soft Nappa leather embossed with shift numbers. The same gorgeous hide - that's another non-Porsche colour, in case you were wondering — wraps itself around Recaro ST-style sport seats with basketweave-effect centres realised by way of specialist embossing. The rear seats





and backrests are treated to the same leather, while the early-style dash top is finished in Alcantara, providing yet another satisfying touch point. Incidentally, the belts are perfectly colour-matched to the seats and are a product of Safety Belt Services, a seat belt manufacturing and re-webbing company offering belts in a wide variety of colours, including a palette specific to Porsches.

Further attention to detail can be seen in the custom dash gauges. All superfluous text has been removed,

while the numbers and lettering are colour-matched to the seats. The rev counter has been rotated, allowing the redline to be at the twelve o'clock position, while a light

# LOADS OF POWER AT THE TOP END, LIGHT WEIGHT AND FANTASTIC MECHANICAL HANDLING

indicating maximum power tells Craig when it's time to back off or change gear.

Moving eyes along the bespoke one-piece leather-trimmed knee bar, the 911 T/R-inspired door cards come into view, complete with RS-style opening straps, which serve to draw attention to the lack of window switches. "They're hidden beneath the dashboard," Craig smiles. "I wanted the interior to be as simple and uncluttered as it could be. Anything which doesn't improve the driving experience is gone." With the exception of a hidden fire

extinguisher and magnets to mount a smartphone to the dashboard, there really isn't anything in here you'd consider supplementary to requirements. Even the glovebox lid is gone, leaving an open cubby hole in the leather-trimmed dash. A peek inside reveals the presence of USB charging ports, useful for long journeys.

Talking of which, Craig's first major outing in the car — a road trip to Germany's Black Forest — took place a short while after our photo shoot. How did

he get on? "The usual statements regarding a finely developed 911's ability to remain planted to the road and handle like it's on rails hold true," he says. "I dove around

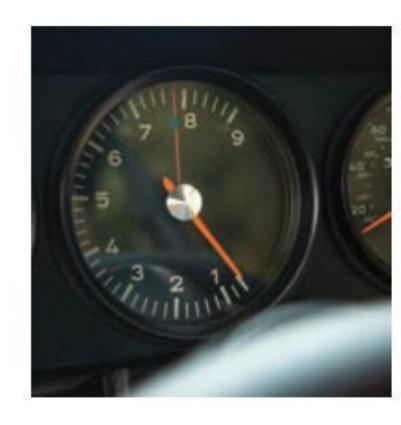
a variety of different roads, from single-lane hairpins to sweeping high-speed curves, both in beating sunshine and in pouring rain. The car didn't seem to have any limit to mechanical grip, even in the wet. It was perfectly suited to trail braking, coming at a corner fast, breaking through to the apex and then leaving the bend at pace. I didn't experience an ounce of understeer or oversteer, even when I was driving what should have been far too fast for inclement conditions. I could feel everything through the nose of the car, such as when it was starting

Above Height of custom splitter matches the dimensions of the metal surrounding the horn grilles









**Above** Soft-touch leather is a non-Porsche colour perfectly complementing the body

Below Fancy owning this very 911? Craig has decided to advertise it for sale in order to commence a new build with the Canford Classics team to reach maximum grip and was thinking about washing out. I could then drive on the throttle."

Other cars on the trip included a Jaguar XKR, a 996 Turbo and a Lamborghini Gallardo. "The owner of the Lambo was following my tracks in the wet because the Avons fitted to my 911 were dispersing a huge amount of water, leaving a relatively dry track in my wake!" Craig laughs. "Despite the electronic driver aids in this trio of more modern speed machines, none of them could keep up with my decidedly analogue air-cooled Porsche in the corners. I should stress, I'm no Walter Röhrl behind the wheel, it's just that everything about the handling and steering of this car is so intuitive and inspires a huge amount of confidence."

What about the power laid down by that 3.5-litre motor? "What character!" he cries. "This car has a split personality. During the drive down to south-west Germany from Calais, I stayed in fifth gear and cruised at a steady 3,500rpm. The custom exhaust was quiet, with the flat-six burble ever present, but not invading the cabin." The

sound deadening qualities of the Dynamat noiseproofing material laid beneath the Perlon carpets undoubtedly helped in this regard. "The engine is silky smooth in its operation. There's plenty of power on tap, even in high gears, such is the force of torque at my disposal. The car performed faultlessly as a GT, even though it wasn't configured primarily as a tourer. I climbed out after the drive and felt fresh, not stiff or deafened in the slightest. In truth, despite the ridiculously comfortable and supportive seats, I was expecting to be in all sorts of pain when I reached my destination after such a long journey."

On to the forest region's twisties. "The car turned into a high-revving, screaming banshee with more power than I could possibly need! Up to 3,900rpm, the engine has power and torque with subdued noise, which I found great for creeping through villages and towns, but when the cam comes on song at 4,000rpm, all hell breaks loose, as if turbochargers have kicked in, despite this being a normally aspirated 911. You get a push in the back and off you go. The power of the engine is released in almost instantaneous fashion. The exhaust note changes to a high-pitch yowl, which my fellow road trip attendees likened to the sound of a Spitfire aircraft. It only softens beyond 6,500rpm. When the cam is on, the engine pulls increasingly hard all the way up to the redline with positively no drop off in power. Throttle response is immediate - whipcrack!"



### **MEMBER OF THE CLUB**

As mentioned earlier, Craig initially imagined this 911 to be in keeping with the character of a Clubsport, but with loads of power at the top end, light weight and fantastic mechanical handling, even in the limited time we spent with the car in rural Cambridgeshire, we're convinced it's much closer to what a GT3 would have been like had Porsche introduced the badge during F-series production — Alan and Craig may have kept the circuit-minded aspect of this reimagined SC to a minimum, but we're sure it will make for an amazing trackday toy.



Of course, travelling at rapid pace is only of use if you can slow at equally impressive speed. Thanks to the aforementioned Carbon 12 anchors, this highly

personalised
Porsche has
stopping power
to spare. "Not
once, even in the
wet, did they let
me down," Craig
gasps. "No fade,
no boiling of fluid,

# THE SUCCESS OF THE BUILD HAS ENCOURAGED CRAIG TO THINK ABOUT EMBARKING ON ANOTHER

just amazing braking ability working with the wonderful suspension to fill me with confidence and deliver perfect communication, outlining what the car was doing at every moment of the drive."

Between our time with the car — its first proper shakedown — and Craig's departure for Germany, Alan adjusted the clutch. "The transmission now has so much texture and feel. Shifting up on the straight, with second taking me all the way to 70mph, meant I was never caught out in the wrong gear, even when flat-out. I've driven many G50-equipped 911s, not least my Vesuvio 993, and although they'd have given me a slightly quicker shift, it would have taken away from the truly analogue, wholly mechanical experience completely. The Type 915 transmission is perfect for a 911 of this nature."

Following his return from the Black Forest ("where the

911 was centre of attention everywhere we went, even with the Lambo in tow!"), the success of the build has encouraged Craig to think about embarking on another.

"Everyone involved with this project at Canford Classics has done themselves proud — I don't believe it's possible for anyone to build a better F-series oriented driver's car,

regardless of the model of air-cooled 911 serving as the platform for such a project," he muses. "I'm very much looking forward to beginning another Porsche journey with Alan in the near future."

First, he needs to make room in his garage for a willing donor 911. Yep, the blue belter on these pages is now available for purchase, as advertised through Neil Dickens and Charles Reis, founders of The Hairpin Company (thehairpincompany.co.uk), a Wiltshire-based premium sports car retailer known for the high number of rare and exotic Porsches to pass through its doors. Interested? Give the guys a call.

We have no doubt Craig will be sad to see his wonderfully executed restomod head to pastures new, but considering it turned out this good, we can't wait to see what his next build holds in store. Watch this space! **CP** 

Above The Porsche's recent tour of the Black Forest highlighted how amazingly capable a reconfigured aircooled 911 can be, even when pitched against much more modern sports cars

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f you've been searching for a Porsche specialist to work with on an ambitious restoration project, you'll know it's near impossible to find such a concern carrying out every step of the job inhouse. Even many of the most respected and well-known businesses dealing in the resurrection of tired Stuttgart speed machines outsource much of the work, which in some cases, can result in the firm you've commissioned to transform your Porsche from zero to hero having little control over the time taken or the amount of your cash needed to complete the job, irrespective of what the initial estimate suggested.

Of course, when dealing with cars as old as early air-cooled Porsches, there's always the risk of discovering previously unseen rot or poorly executed repairs carried out many moons ago, both of which may well require additional labour to rectify. The bottom line, however, is simply that the only way to minimise the risk of your dream restoration turning into a complete nightmare is to commission a company capable of overseeing each stage of the work under one roof. Enter the team at Rindt Vehicle Design.

Named after the legendary German-born racing driver, Jochen Rindt, winner of the 1965 24 Hours of Le Mans and posthumously awarded the 1970 Formula One driver's title following his death behind the wheel at Monza that year, this tucked-away Porsche specialist conducts its work from within the environs of beautiful old character buildings on farmland located a stone's throw from Windsor. Employing a team of Porscheloving engineers and craftsmen carrying a huge amount of experience in the restoration of premium marque vehicles, not least classic Porsches, the Rindt Vehicle Design team prides itself on being able to manufacture the rarest and most obscure parts — meeting or exceeding OEM standards — when original components can't be saved.

The company was founded by former professional golfer, Brian Richardson, and incorporated in 2017,

though he's been restoring and modifying air-cooled Porsches since his teenage years. Decades of experience in the field and an acute knowledge of variations in model specification, as well as a desire to create historic Porsches with their own personalities, led him to establish Rindt Vehicle Design following his retirement from sport. Fast-forward to the present day and he's in charge of turning out extraordinary air-cooled classics, from nut-and-bolt restorations of 912s and 911s rebuilt to original specification, to wholly bespoke builds incorporating a raft of custom bodywork and powertrain equipment. There's also a Rindt Vehicle Design motorsport division, as evidenced by various race-ready Boxsters, Caymans and even a fire-breathing 450bhp wide-body 964, each car dressed in the team's distinctive orange and white livery and a familiar sight at Porsche Club Motorsport events.

"Building a classic Porsche is a collaborative process," explains Brian. "We will work with our clients to conceive their car's design and engineering specification, offering

**Above** A wide variety of classic 911s and 912s pass through the workshop doors

Previous spread Brian (left) and Trevor with the newly developed Rindt Vehicle Design twin-motor 911 EV

Below Eight of Rindt's technicians pose with Brian and Trevor in front of the company's motorsport truck



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1989 Porsche 930 Turbo stock #14613

Even without considering that it arguably had the most revered set of mechanics of its age the Porsche 930 Turbo certainly had a body shape that was aggressive, extremely sexy, and timeless. And at Beverly Hills Car Club we presently have a splendid example of such a Porsche 930 Turbo, one of those only 639 examples that reached our shores. And it is indeed from 1989, the last year of production of this iconic supercar. Even more crucial, our Porsche 930 Turbo has only 31,332 miles on the odometer. It comes in its factory color code #550 Linen Grey Metallic with a linen interior. It has a clean Carfax and is equipped with a 5-speed manual transmission, Flat 6 Cylinder 3.3-liter engine, air conditioning, rare (and beautiful) Cibie Pallas driving lights, locking differential 40%, power windows, sunroof, 4-wheel disc brakes, Fuchs wheels, jack, spare tire, and tool kit. Do not miss your chance to jump into the ownership of this amazing and beautiful air-cooled sports supercar that is mechanically sound. For \$275,000



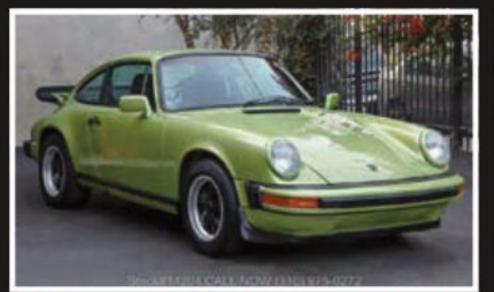
#### 1973.5 Porsche 911T CIS Targa Sportomatic #15259

Presenting this stunning 1973.5 Porsche 911T CIS Targa Sportomatic featured with matching numbers that is finished in its beautiful factory color combination of Gold Metallic with a black interior. The 911T comes well-equipped with a Sportomatic transmission, 2.4-liter engine, air conditioning, 4-wheel disc brakes, Fuchs wheels, fog lights, jack, and a spare tire. Also includes a Porsche Certificate of Authenticity copy, owner's manual booklet, and service receipt copies for an engine rebuild in addition to other work completed totaling over \$42,000 dating from 2016 to 2018. An astonishing Porsche that is ready to be enjoyed and is mechanically sound.



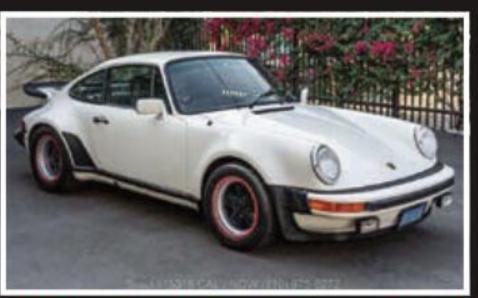
1978 Porsche 911SC Targa Slant Nose Conversion #15151

Presenting this 1978 Porsche 911SC Targa Slant Nose Conversion that is available in its factory color code #80K Guards Red with a black interior. The vehicle comes equipped with a 5-speed manual transmission, upgraded with a 1983 Porsche 911SC Flat 6 Cylinder 3.0-liter engine, air conditioning, power windows, Speedline wheels, aftermarket wide-body slant nose kit, 4-wheel disc brakes, jack, and spare tire. A highly desirable air-cooled Porsche that is mechanically



1978 Porsche 911SC Sunroof Delete Coupe #14204

Presenting this matching numbers 1978 Porsche 911SC Sunroof Delete Coupe is available in this highly desirable factory color code #275 Light Green Metallic with a black interior. The vehicle comes equipped with a 5-speed manual transmission, a Flat 6 Cylinder 3.0-liter engine, 4-wheel disc brakes, and Fuchs wheels. An excellent original California car that is mechanically sound.



1976 Porsche 930 Turbo Carrera #15318

Presenting this highly-collectible 1976 Porsche 930 Turbo Carrera, Sunroof Delete featured with matching numbers and 96,012 miles on the odometer. Finished in its factory color Grand Prix White (908) combined with a black interior. Equipped with a manual transmission, four-wheel disc brakes, dualside blind spot mirrors, air conditioning, pop-out rear quarter windows, rear bumperettes, VDO dash gauges, whale tail rear spoiler, fog lights, foldable rear jump seats, sun visors, locking glove compartment, door pockets, three-spoke steering wheel, analog clock, Kenwood radio, Fuchs wheels, tool roll, and spare tire fitted in the trunk. This is #225 out of only 530 examples produced for the US market. An original blue-plate California car highly desirable and is mechanically sound.



For \$52,500



1975 Porsche 911S Sunroof Coupe #15112

Presenting this 1975 Porsche 911S Sunroof Coupe that is available in black with a black interior. The vehicle comes equipped with a manual transmission, upgraded with a 1975 Flat 6 Cylinder 2.7-liter Carrera engine, power windows, sunroof, 4-wheel disc brakes, and spare tire. An original blue plate California car that is mechanically sound.



1969 Porsche 912 Coupe #14927

Presenting this long-wheelbase 1969 Porsche 912 Coupe featured with matching numbers and is available in its factory color code #6803 Ossi Blue with a black interior. The 912 Coupe comes equipped with a 5-speed manual transmission, dual carburetors Porsche hub caps, 4-wheel disc brakes. A gorgeous colors combination air-cooled Porsche 912 that is mechanically sound.



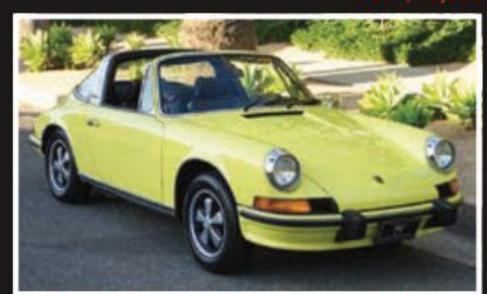
1971 Porsche 911E Coupe #15099

Presenting this 1971 Porsche 911E Coupe featured with matching numbers (Porsche Production Specification Certificate copy included). Available in India Red with a black interior. The 911E comes equipped with a manual transmission, Flat 6 Cylinder 2.2-liter engine, air conditioning, 4-wheel disc brakes, Fuchs wheels, spare tire, and jack. A very presentable air-cooled Porsche that is mechanically sound.



1976 Porsche 914 2.0 #15176

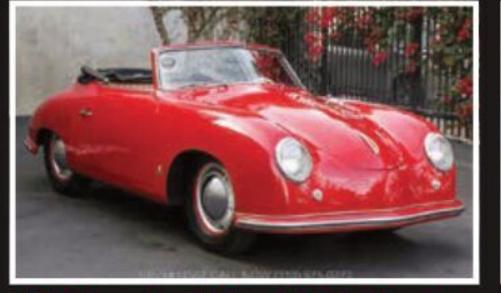
Presenting this matching numbers 1976 Porsche 914 2.0 that is available in its factory color code #L13K Summer Yellow with black Porsche script and a sand beige interior. The vehicle comes equipped with a 5-speed manual transmission, 2.0-liter engine, 4-wheel disc brakes, jack, and spare tire. Also includes the original owner's manual, Porsche Production Specification Certificate copy as well as service documents and receipts copies totaling over \$2,000. An excellent original blue plate California car that is mechanically sound.



1973 Porsche 911E Targa #12666

Here is a recently discovered 1973 Porsche 911E Targa featured here with matching numbers is available in its factory color code #117 Light Yellow with a black interior. It comes equipped with a 5-speed manual transmission, 4-wheel disc brakes, G26 Group option: S trim, heated rear glass, sway bars, S instrument, air conditioning, and Fuchs wheels. This is an extremely original Porsche 911E (please review paint meter reading photos). A very sought-after original blue plate California car that is an excellent addition to any Porsche enthusiast. Don't miss your chance to acquire this original 911 that is mechanically sound.

For \$89,950



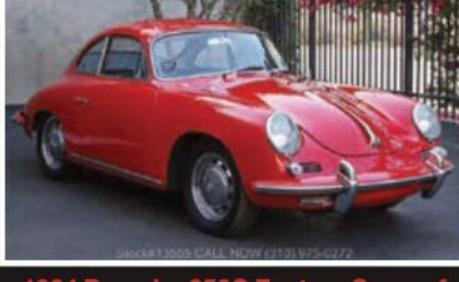
Presenting this extremely sought-after 1952 Porsche 356 Pre-A 1500S Reutter Cabriolet that is available in this gorgeous color combination of Strawberry Red with a sand beige interior. The vehicle comes equipped with a 4-speed manual transmission, 1953 Flat 4 Cylinder 1500 engine, dual carburetors, Telefunken radio, soft top, bent-windshield, steel wheels, and chrome hub caps. Also included is a copy of the Certificate of Authenticity and Kardex. An excellent opportunity to acquire such a rare and hard-to-find early low production air-cooled 356 Porsche that is mechanically sound. For \$275,000



1952 Porsche 356 Pre-A 1500S Reutter 1962 Porsche 356B 1600 Super Sunroof Cabriolet #14567 Coupe #14854

Presenting this 1962 Porsche 356B 1600 Super Sunroof Coupe featured with matching numbers however the transmission has been replaced at some point in its life (Porsche Certificate copy included). Available in Oslo Blue with a black interior. The 356B comes equipped with a 4-speed manual transmission, Flat 4 Cylinder 1600S engine, dual carburetors, wood steering wheel, sunroof, and Porsche hub caps. Also includes receipts copies totaling over \$2,000. An extremely sought-after sliding sunroof Twin Grille T6 that is mechanically sound.

For \$79,950



1964 Porsche 356C Factory Sunroof Coupe #13555

Here is a rare 1964 Porsche 356C Factory Sunroof Coupe featured with matching numbers (Kardex copy included). Available in its factory color code #6407 Signal Red with a black interior. The vehicle comes equipped with a 4-speed manual transmission, 1600c engine, dual carburetors, sunroof, matching numbers hood/decklid, chrome wheels, and 4-wheel disc brakes. An excellent 356C Coupe that is ready to be driven and enjoyed. This extremely sought-after Porsche had the same owner since 2000 and is mechanically sound.

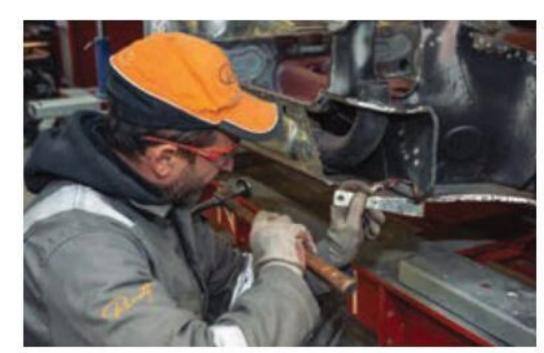
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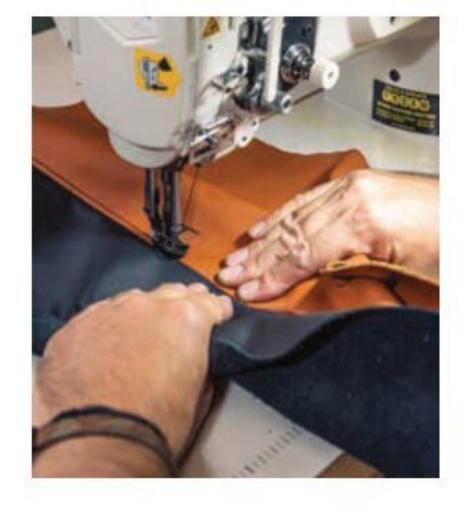




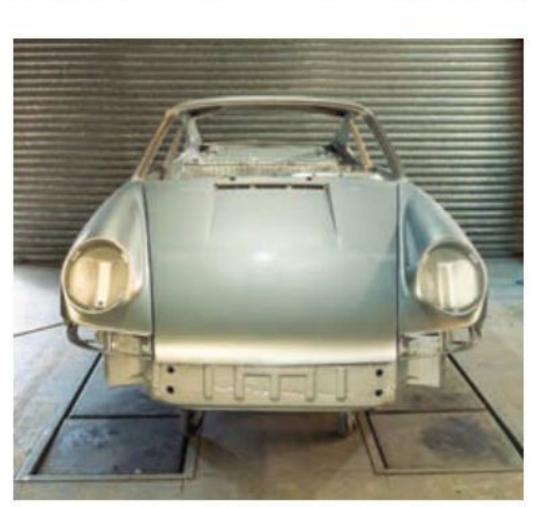


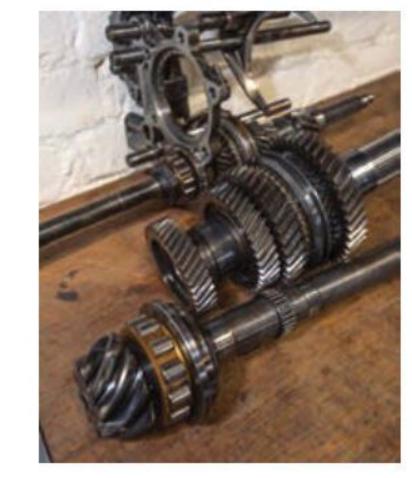




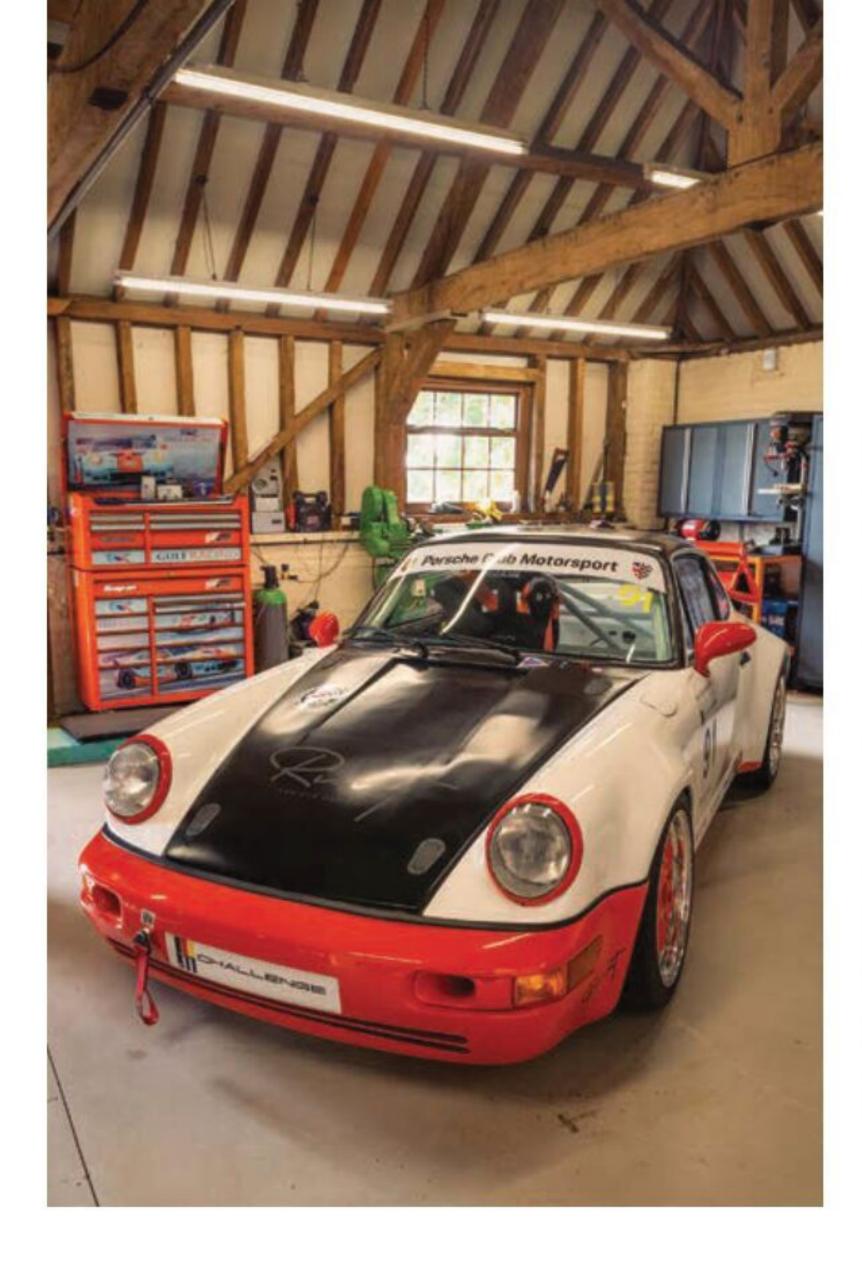








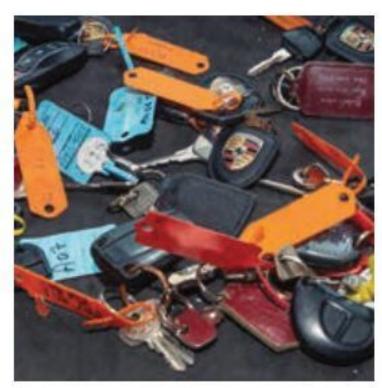
### **SPECIALIST VISIT**

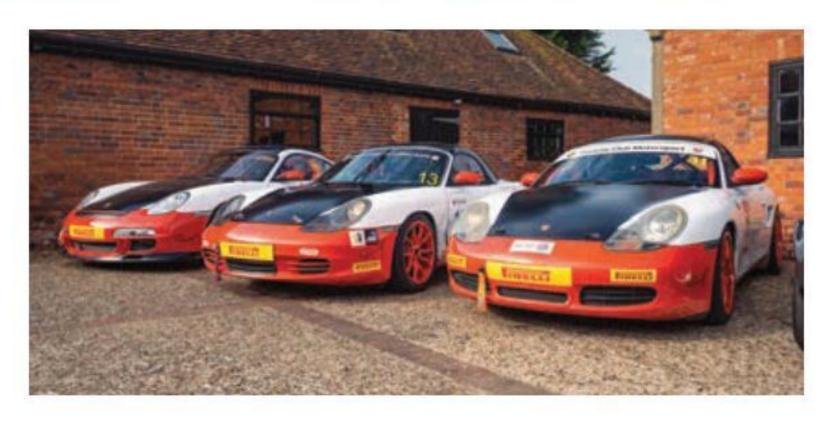








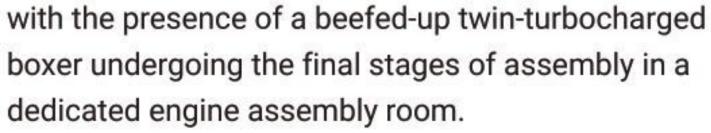




Facing page Whether it be interior trimming, engine building, full body stripdown, custom metalwork or paint, Rindt Vehicle Design has all bases covered

Above and right Motorsport department campaigns Caymans, Boxsters and even a 450bhp 964 in Porsche Club Motorsport events advice on the selection of donor car and assistance in the purchase process, where applicable. We can design and build one-off body panels and trim, and we can craft interiors which either whisper understatement or throw away the rulebook. Ultimately, we'll deliver an automotive masterpiece, built to last, from which an owner can derive endless pleasure."

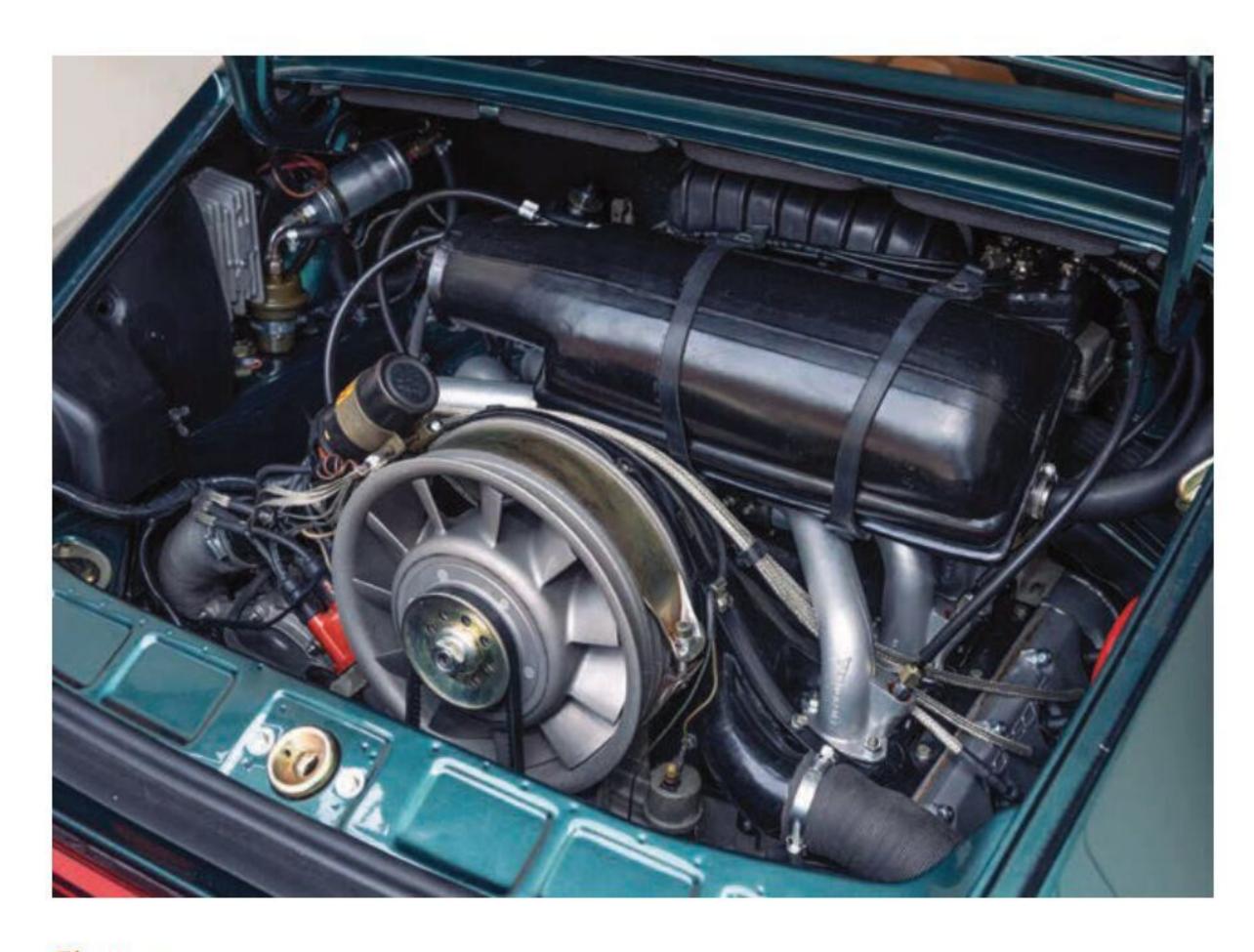
Any restorer promoting their wares would say the same, but proof is in the, er, Porsches, and there's no shortage of restored and reimagined Zuffenhausen metal at Rindt Vehicle Design vindicating Brian's sales pitch. As we wander through timber-beamed workshop after timber-beamed workshop, we're presented with a veritable feast of works in progress, from freshly painted body shells in the early stages of reassembly, to comprehensively redeveloped chassis ready to accept massive power from bespoke engines, including the company's recently perfected four-litre supercharged air-cooled flat-six. The theme of forced induction continues



Maybe luck is on our side on the occasion of our visit, but each of the restored 911 bodies on display — some coupe, some Targa — is finished in an eye-popping, camera-friendly colour. "During the course of the past seventy-five years, Porsche has developed more than a thousand paint shades," Brian observes. "We have the eye and experience of matching even the most obscure factory paint colour, as well as developing one-off specials. Crucially, we endeavour to imitate the finish of pre-1980 non-cellulose, water-based paints used by Porsche from the manufacturer's earliest days."

Among Rindt Vehicle Design's most prized assets are its panel beaters. The age-old artisanal work of handbeating panels is a dying art, not to mention one at a serious premium in the industry, but as we walk around the firm's generously-sized bodywork facility — paying host to another half a dozen 911 shells undergoing various stages of restoration and modification — it's clear Brian has managed to attract a team well-versed in the intricacies of creating and shaping vintage automotive bodywork. As you'd expect, there's an English Wheel on the go, but we also note three original 1960's Celette jigs and pegs, ensuring factory-correct specifications are observed during full bare metal restoration and vehicle reassembly.

We're treated to a sneak peek of hugely exciting projects due to be completed in the new year. We'll reveal full details and showcase each car in coming issues of *Classic Porsche*, suffice to say even in its skeletal form, the pillarless 911 coupe we're looking at promises to set show season alight following completion of the build. It's one of Brian's pet Porsche passion projects and will serve to demonstrate the capabilities of Rindt Vehicle Design to prospective clients less than au fait with its output. The car is impressive enough even in this basic state — the more you look, the more you appreciate



PORSCHE December 2022 51



just how much work has gone into every aspect of the bodywork — but with the plans Brian reveals to us he has in store for this highly individual Neunelfer, we can't help but feel the finished article will quickly become a calling card generating enquiries from marque enthusiasts wanting the same treatment for their 911s.

There's a dedicated trimming department on-site, too. "We have a network of material suppliers and manufacturers capable of recreating factory fabrics, but also the ability to create entirely original concepts and designs to suit individual requirements," Brian continues. "Our team of in-house trimmers are experts in their field and can produce stunning interiors for all air-cooled Porsches." Like we said earlier, everything is under one roof. Well, almost

there's a fine
selection of 911s
and 912s out in the
courtyard circled by
the workshops we've
been exploring.
Some of them are
sales cars — at the

HAND-BEATING PANELS IS A DYING ART, NOT TO MENTION ONE AT A SERIOUS PREMIUM IN THE INDUSTRY

time of writing, Rindt Vehicle Design is advertising no fewer than five 912s as available for purchase, alongside various 911s, including a Grand Prix White Carrera 3.2 Supersport Targa. There's also the opportunity to buy various currently in-progress restorations, including a matching-numbers 911 T 2.4. Modern metal is represented by a 997 Turbo S Cabriolet, a 981 Cayman GT4 evocation and a 996 GT3 upgraded with various genuine GT3 RS parts.

It's in the courtyard we meet Trevor Ward, a Rindt Vehicle Design customer so impressed with the work in creating his bespoke 964 Targa, he joined the firm as a director following a lifetime spent working in the IT industry. He's standing next to a striking Rubystone Red G-series 911 sporting gorgeous gold wheels and a pronounced ducktail. It's what's beneath the iconic

spoiler that has him really excited, though. "Rindt Vehicle Design has considerable technical expertise in replacing a classic Porsche's factory-fitted petrol engine with a state-of-the-art twin-motor electric powerplant," he beams. "This is the launch version of our 911 EV, which we are now testing ready for sale. The donor car was subjected to full restoration and then electrified, making use of fifteen 2.7kw/h battery modules, with range of up to 160 miles, if driven sensibly. Even with aggressive driving, however, that figure comes down to a respectable 110 miles."

What's most impressive about this stunning 911, however, is the fact it retains its original transmission. Too often, naysayers complain converting a classic

Porsche to
electrification
removes much of
what we love about
these cars, but
the Rindt Vehicle
Design team has
worked hard to
blend ULEZ-friendly

modern technology with the traditional Porsche driving experience. In next month's issue of *Classic Porsche*, we'll explore what's on offer, including the performance of the twin-motor set-up, delivering combined on-paper output of 240bhp and a near 350lb-ft torque.

Brian and Trevor are transparent about the work taking place under their watch, so much so they publish a weekly 'Friday night walkaround' reel to their company's Instagram feed, highlighting currently available sales stock and the progress being made on each of the team's project Porsches. Whether you want your aircooled restoration-in-waiting to be powered by an original-specification boxer, a wild four-litre unit assisted by a blower, or a thoroughly current (see what we did there?!) twin electric motor configuration, Rindt Vehicle Design has you covered. Form an orderly queue. **CP** 

Above A fleet of beautifully finished 911 bodies in various states of reassembly, some with custom powertrains, including Rindt Vehicle Design's recently finished four-litre supercharged flat-six

### AUTOMOTION

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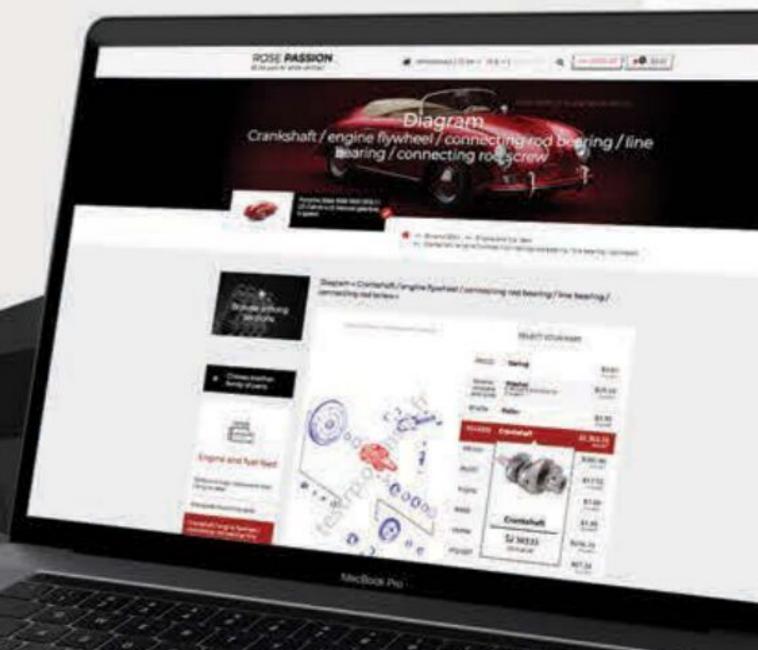
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### CHARLIE PORSCHE

When the end of the 356 was in sight, Porsche made sure its star car bowed out with the best of Zuffenhausen's mechanical equipment...

Words Karl Ludvigsen Photography Porsche

n the autumn of 1965, the car on which the
Porsche-automobile reputation was built became
a museum piece. In fact, 1963 was the last year
in which normal sports car production from
Zuffenhausen would consist entirely of models
derived from the Type 356. New designs, the 911
and 912, took an ever-increasing share of total output,
which grew to 10,808 cars in 1964 and 11,243 in 1965.
At the close of the latter year, the classic 356 was no
longer part of the Porsche range, but it departed with a
flourish in its final form: the much-improved Type 356 C.

The new designation for the 1964 model was a result chiefly of changes

in the car's
braking system
and engine. The
body, dating from
the T6 program
of 1961-62, was
carried over to the
C model with only

### THE QUALITIES MAKING IT SO LIGHT ALSO HELPED DISQUALIFY THE PORSCHE DISC BRAKE FOR MASS PRODUCTION

minor alterations. On July 1st 1963, the first batch of these updated bodies was delivered to the Porsche plant from the adjacent Reutter factory — which Porsche had taken over that year — in preparation for the media debut of the 356 C in August and the Frankfurt Motor Show on September 12th. With Reutter deeply committed to the launch of the 911, however, Porsche relied on coachbuilder, Karmann, to continue being an important source of closed bodies for the 356.

"It was soon apparent Porsche engineers read magazine road test reports," *Motor Sport*'s correspondent noted after the Frankfurt event. "The heater knob has been replaced by a lever and the awkwardly placed light switch has been moved to ensure the driver does not have to reach through the steering wheel to operate it." In such ways, Porsche continued to buff its well-earned reputation for careful attention to detail.

Other items repositioned to the right of the steering column on an amended dash panel were the wiper control and cigar lighter. A rocker-type switch was provided for the interior lamps, coupe passengers having the benefit of a reading lamp. Condensation on the rear window was cleared by two warm-air ducts. When the rear seat backs were folded down for luggage, new ridges at the front kept it from sliding forward.

Further new touches included deeper seats, which slightly increased headroom. Additionally, standard equipment armrests served as door-closing grips. The former model's chromed passenger-assist grip

was replaced by a larger black plastic item. The glove compartment lid was now retained magnetically instead of by a latch. Carried over from the 356 B was the Cabriolet's rear window, which could be unzipped from inside or outside and folded down to give fresh air flow. A hardtop was optional equipment for Cabriolet buyers.

Subtle suspension changes tended both to improve the ride and to reduce oversteer. To enhance understeer, the diameter of the front anti-roll bar was increased by a millimetre, while to improve the ride, the torsion bars suspending the rear wheels were reduced in diameter from twenty-three to twenty-two millimetres.

The transverse compensating spring at the rear was standard only on models with the most potent engines, such as the 1600 SC and the Carrera 2, remaining optional

on other models. Dampers were Boge for the C and gaspressurised Konis for the SC.

The sole external recognition point of the 356 C, apart from its rear deck badges, was its new wheel and hubcap design. A direct result of the adoption of four-wheel disc brakes, this change was historic. It meant abandonment of the distinctive combined brake and wheel design hitherto a Porsche hallmark. The reason for this change was that the brake design chosen was not Porsche's own Type 695 conception. The unusual qualities making it so light and effective also helped disqualify the Porsche disc brake for mass production — its mechanical and hydraulic parts were not entirely compatible with the disc systems going into volume manufacture for an increasing number of marques.

### **PERSONNEL CHANGE**

Porsche's own output was not, of course, large enough for the company to swing the rest of the industry around to its point of view. Furthermore, Nikolaus 'Klaus' von Rücker, a major advocate of the Porsche brake and its joint inventor, was no longer around to press for its use, having left the post of technical chief at Porsche in October 1961.

Little more than a year later, Porsche ended its involvement in Formula One, for which it continued to use its own brake design. At the same time, the company turned its disc brake patents over to the Alfred Teves firm, which subsequently became the supplier of brakes

Facing page Symbolized by this white Charlie coupe leaving tracks, the 356 was (and remains) a cherished Porsche creation, paving the way for the launch of the 911



for the 356 C. Thus, Teves (better known by its Ate trademark) finally won the competition for Porsche's business, a pursuit beginning in 1958 with the Dunlop discs Ate represented and made under license. Now, it won out not by stubbornly insisting on its own design, but rather by adapting its brake to meet Porsche's requirements.

Each disc-gripping caliper had a single piston on each side — the Porsche brake had two on each side — with a special adjustment mechanism

ALTHOUGH THE METHOD WAS NOT THE CHEAPEST, THIS PORSCHE HANDBRAKE NOTION REALLY DID THE BUSINESS

developed by Porsche. The caliper provided automatic lining adjustment, maintained a small running clearance and restored the piston to its proper position after momentary disturbances, such as the flexing of the disc's alignment during hard cornering. Porsche patents were incorporated in the Ate brakes in another important way, namely the use of a little drum-type brake for parking. This was hidden inside the rear brake discs, each of which was given a deep, hat-like shape to form the seven-inch drums against which rubbed the mechanically actuated shoes. The rear discs were given a slightly larger diameter than those in front (11.2 inches instead of 10.8) to allow enough room for the parking brakes. Disc thickness was 10.5mm at the front, ten millimetres at the rear.

Although the method was not the cheapest, this
Porsche handbrake notion really did the business.
"Worked through a mechanical linkage from the twistand-pull handbrake beneath the fascia," said *Motor*in its test of a 1964 1600 SC, "these small drums are
surprisingly powerful and will easily lock the rear wheels
or hold the car on a 1 in 3 slope." The British weekly
gave the new disc brakes qualified approval. "For highspeed stopping, the discs are a success. Pedal forces

are rather heavy, but even the hardest use failed to raise them by more than a few pounds and recovery was quick. There was never any deviation from a straight line and the brakes remained quiet throughout." An amenity of the new system was a translucent brake fluid reservoir readily visible in the front trunk compartment.

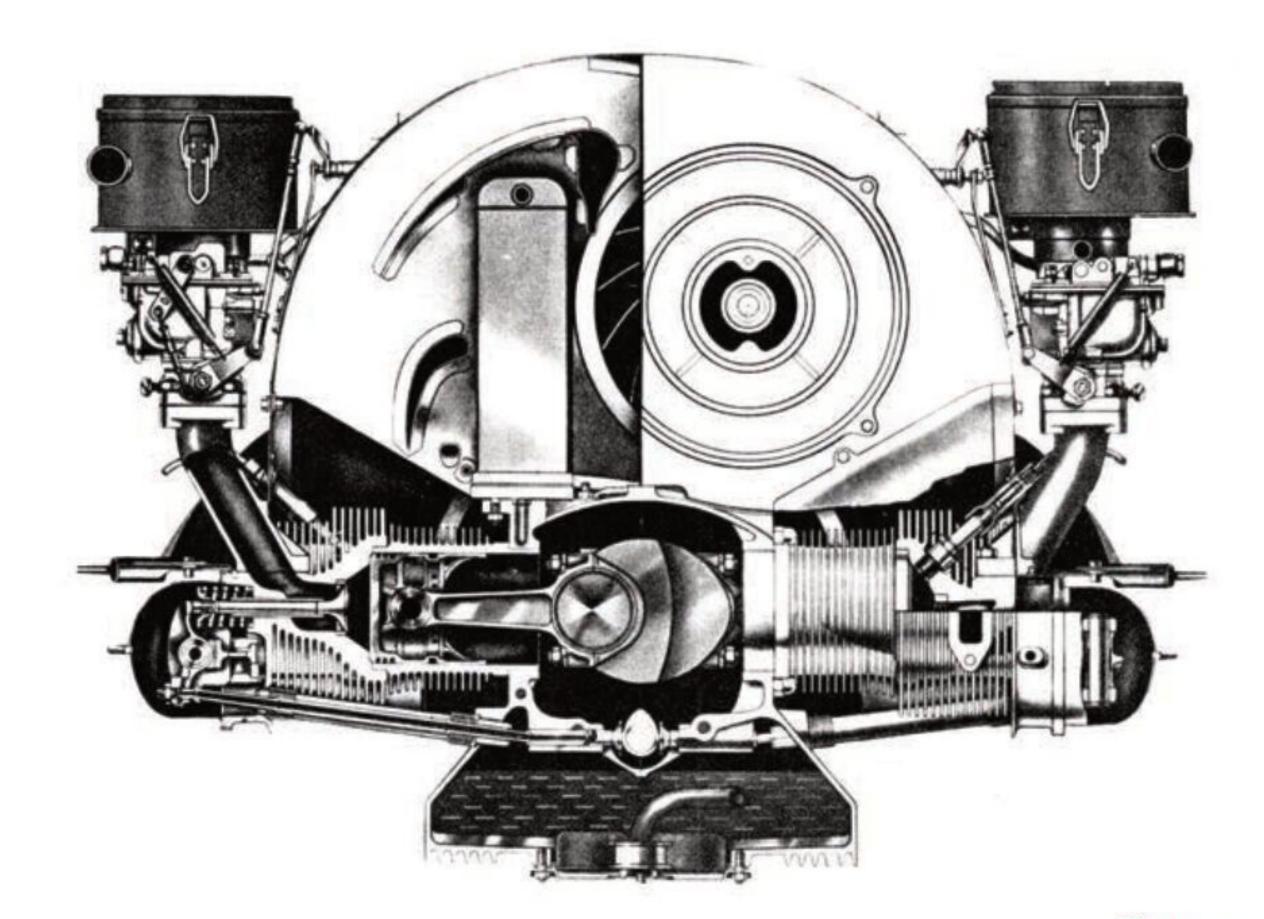
New brakes
required new
wheels. For the
first time on a
356-series Porsche,
conventional fulldisc wheels were
used. They were
attached by five

studs covered by smaller, flatter hubcaps than those previously used. Perforated with a ring of oval vents similar to those adopted in past Porsche production, the new wheel kept a 4.5-inch rim width.

With the launch of the 356 C, the pushrod engine

Above Fritz Huschke von Hanstein's secretary, Thora Hornun,g gave proportion to the new 356 C coupe, unchanged in form but refined internally

Below Developed by Hans Mezger for the 356 C, the Type 616 engine range featured realigned valve sizes and reshaped ports, as well as crankcase ventilation



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range was brought back to the relative simplicity it had enjoyed in the late 1950s — there were now just two engine choices. This was achieved by dropping the least potent engine (the sixty-horsepower 'Normal' flat-four) and by giving important refinements to the remaining two. The 1600 S (or Super 75) became the 1600 C (Type 616/15), while the Super 90 was transformed into the 1600 SC (Type 616/16). These two engines powered the 356 C through its final two years of life.

Development of the new engine range was supervised by Hans Mezger, who had been working on Porsche's Grand Prix car design and testing programme throughout much of 1962. Born in Ottmarsheim, near Stuttgart, Mezger joined Porsche in 1956 at the age of twentysix. His first assignment was in the computations department under Egon Forstner, where Mezger saw a chance of being involved with sports car development. "I liked the look and design of the Porsche from the moment I saw it," he later recalled.

### **SAVING THE BEST FOR LAST**

One aim was to rationalize the engine design for more efficient manufacturing. Another objective was to get from the former Super 90 the ninety (or more) horsepower it never actually possessed in production. The result was the best-ever engine family for the 356. "Whenever more power had been needed before," Mezger explained, "the inlet valves had always been made larger, but not the exhaust valves. In consequence, the latter had become much too small." He took the radical step of reducing the inlet-valve diameter from forty millimetres

to thirty-eight so that the exhaust valve could be made larger, at thirty-four instead of thirty-one millimetres.

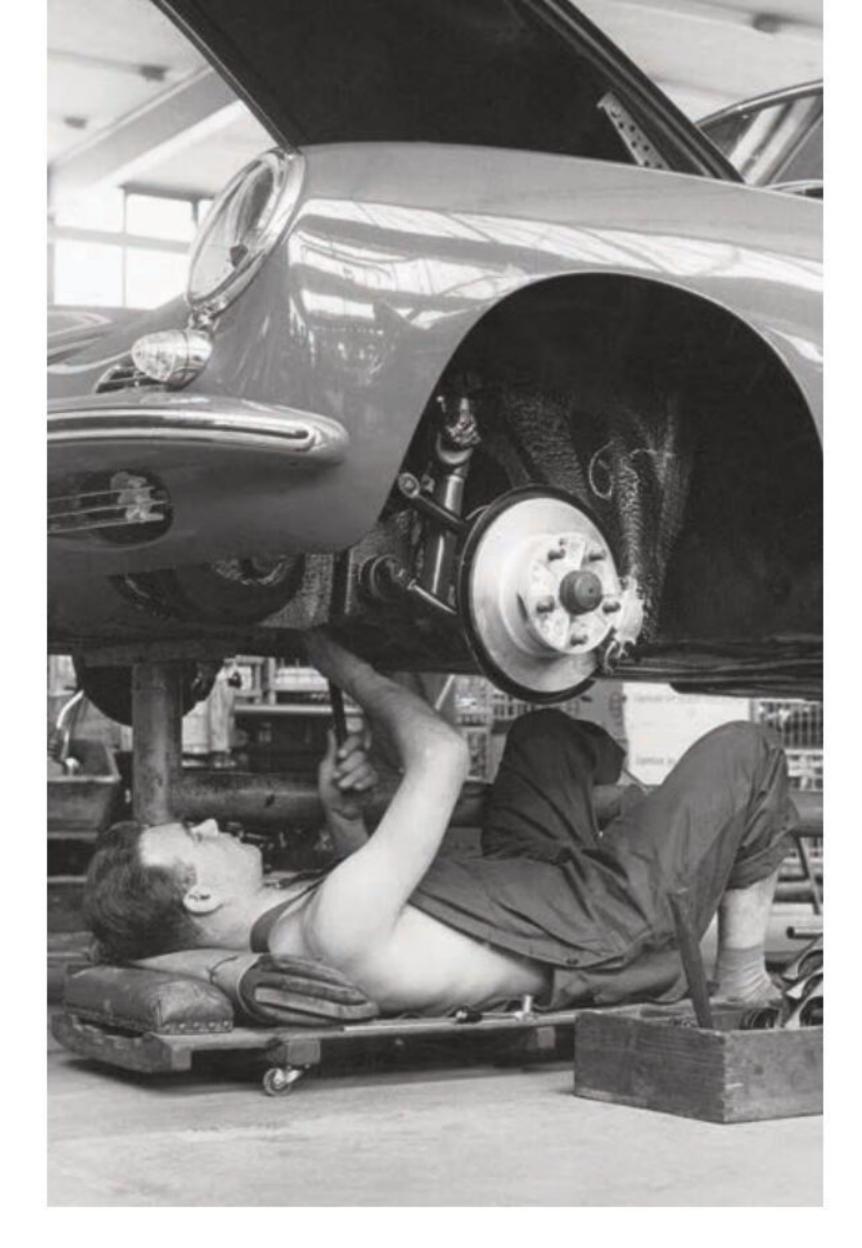
At the same time, Mezger reshaped the inlet and exhaust ports, improving flow by making each cross-sectional area more nearly constant. Sharing the same valve sizes and basic head design, some cylinder heads were specified by Mezger to be anodised black for better heat dissipation. Breathing of the 1600 SC was kept at a high level by its continued use of the Super 90 camshaft. Produced as usual by Munich's Schleicher Fahrzeugteile, a separate camshaft was developed for the 1600 C, offering timing similar to that of the old 1600, but with moderately reduced lift.

Triple-grooved valve stems matched new split keepers and spring retainers. Sodium-cooled exhaust valves were fitted to the 1600 SC engines. New piston crown and combustion chamber contours gave compression ratios of 8.5:1 and 9.5:1 for the two versions of the flat-four. Each had its own inlet manifolding and carburetion: Zenith 32 NDIX units for the 1600 C and Solex 40 PII-4 instruments for the 1600 SC.

Both were fed by external piping to meet new
American requirements for positive crankcase
ventilation, a move design to reduce engine emissions.
Much enlarged breather chambers featured around the
oil filler cap and hoses to take unburned hydrocarbons
from the crankcase to the carburettor inlets.

Further refined in detail, crankcases for both engines were identical. They retained the Super 90's enlarged fifty-five-millimetre main bearing size for journals at the centre and nose of the crank and used the smaller

Above A rare view of the interior of the Reutter factory (Porsche's Werk 2 facility after acquisition), where 356 C bodies were constructed





Above On the Zuffenhausen production line, a worker fits the bracketry holding the 356 C's thinner front anti-roll torsion bar, while a major advance in the 356 C was the use of disc brakes (all four wheels were so-equipped), supplied by Germany's Teves under licence from patentholder, Dunlop

Right This factory-fresh 356 C is in the slow lane because it's getting a shakedown on the Autobahn to find flaws

Below At Geneva in March 1964, two white 356 C models were prominently displayed between a red 904 and blue 911, whose serial production was still some months ahead

original size of fifty millimetres for the bearing next to the flywheel. The overhung bearing carried by the timing case remained at its forty-millimetre diameter. Only the shells of the two large main bearings were fitted with hard steel-backed

Mezger applied some of his growing racing know-how to the design of the crankshaft for the 1600 SC engine which, unlike that of

lead-bronze inserts.

its less potent sister, was fitted with four large integral counterweights for smoother running at high revs. This helped elevate the speed at which peak power was reached to 5,800rpm, the highest such figure yet for a normally catalogued pushrod Porsche. This was also the SC's tachometer redline, though in truth, the engine could

if not overindulged.

Output of the 1600 SC was a satisfying 95bhp net at

reported revs of 6,500 to 7,000rpm were safely allowable

be run safely to 6,000rpm. Indeed, Porsche pushers

5,800rpm, 107bhp gross. Torque delivery peaked at 4,200rpm with 91lb-ft. The 1600 C delivered its maximum power of 75bhp net at 5,200rpm, with a

power curve almost identical to that of the SC from 1,500 to 4,000rpm, at which point the SC's cam and carburetion began making their presence known.

Cast-iron cylinders were used in the milder 1600 C engine, while at its introduction, the SC featured aluminium cylinders with a Ferral bore coating, carried over from the Super 90. During 1964, however, these were supplanted by yet another cylinder construction, made for Porsche under the 'Biral' trade name. These consisted of a cast-iron sleeve around which a finned aluminium muff was cast in place in such a way as to form a mechanical bond between the two materials, allowing better transfer of heat from the iron to the aluminium, thence to the air.

Drivetrain improvements included a 200mm clutch for both engines. In the transmission itself, the synchronizing rings were more robust to improve durability. Really racy buyers could specify a limitedslip differential. Testing an SC coupe, Motor gave its impressions of the behaviour of this new Type 616/16 engine. "The engine idles with a little flutter from the back. When the throttle is opened, there is an intake roar from the carburettors which does not increase much with speed. Fan whine does, however, and this is a car which one normally drives with the windows shut, thereby keeping out most of the noise. Under hard







acceleration, there is a certain throb, but most of this is noise, not vibration. The acceleration is not the sort that jerks your head back. It is more the progressive kind, which goes on a long time very uniformly in every

gear without the car feeling much faster or even getting much noisier." In the case of the car tested by *Motor*, acceleration was not even very good when compared

### ALTHOUGH THE 356 C WAS REPLACED BY THE 912 IN APRIL 1965, PORSCHE KEPT ON SELLING THE 1600 SC IN THE USA

with Porsche's own data on a similar car tested by Road & Track. The two publications did, however, return excellent fuel-mileage figures for these cars, but because they were Porsches, their economy was all but taken for granted. Motor quoted mileage of twenty-two to twenty-four miles per US gallon for the SC, while Road & Track cited a range of twenty-four to twenty-right for the C-engined car.

### **FORCE TO BE RECKONED WITH**

As tested on the then new Weissach skid pad, with the latest belted radial tyres, the 356 C was capable of generating cornering acceleration of more than eight-tenths that of gravity, specifically between 0.81 and 0.83 g, depending on the diameter of the test circle. This was a very good value for the time — a European sedan with the same tyres cornered at no better than 0.73 g. This was the quantitative measure of the 356 C's

handling, using terms with which Porsche's engineers were becoming more and more familiar. In its 1600 SC test, *Motor* aptly summed up the qualitative aspects of Porsche handling in these last years of the 356.

"Slow corners
produce some
understeer," said
the publication's
correspondent. "As
the speed is built up,
this alters gradually
and progressively to
a neutral condition,

then oversteer, culminating in the back gently breaking away. Few people will drive fast enough on the road to reach this condition. Steering is high-geared and fairly light at moderate speeds, but very strong castor action makes it rather heavy when cornering hard on sharp bends."

In 1964, Road & Track's European correspondent,
Henry Manney, borrowed Fritz Huschke von Hanstein's
new 356 coupe to see what 1600 SC motoring was like.
He penned a typically personal portrait. "This Porsche
understeered, if anything, although the back could be
kicked around in a satisfactory manner on hairpins. The
ride was reasonable if solid, the seats were comfortable,
everything worked — including the gearshift — and little
touches like the rubber flap on the fender-mounted
fuel filler were much appreciated. In spite of being
designed as a Grand Routier, the car proved itself to
be unexpectedly handy in traffic, nipping through the

Above At the majestic stairway of the Schloss Solitude, Evi Butz (later to become Mrs. Dan Gurney) posed with this 356 C Cabriolet for a Porsche promotional photo





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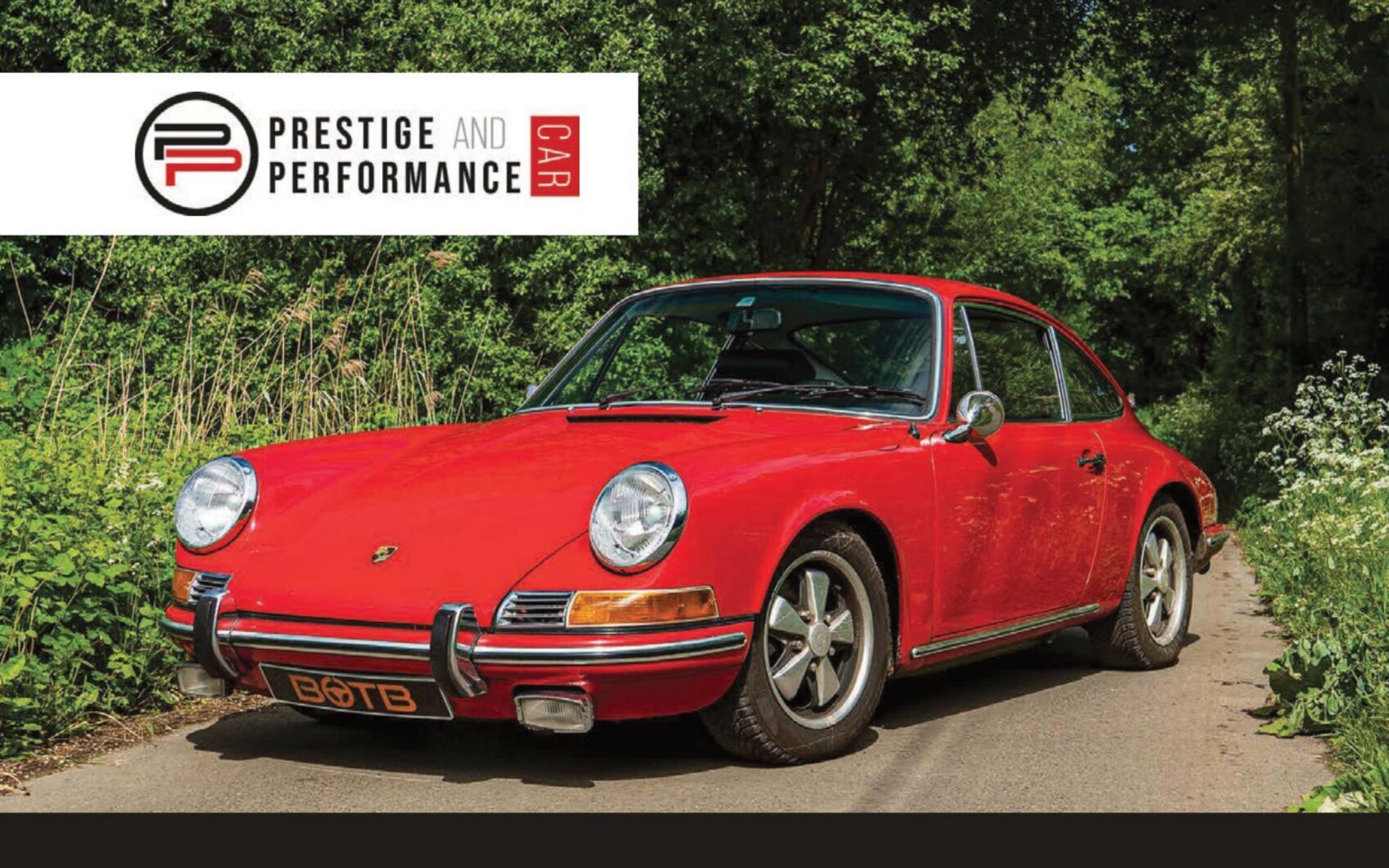
smallest holes with truly remarkable velocity. On the way back to Stuttgart, we hit long stretches of melting slush over ice, which were putting people in the ditch right and left. In spite of having to be wary about wheelspin, we managed the long Paris-Stuttgart run without anxious moments. I can see why Porsche sells so many cars."

Although the Type 356 C was replaced in the European market by the 912 in April 1965, Porsche kept on selling the 1600 SC in the United States up until the end of the year. So refined was this last of the 356s, the cost of its repairs under warranty averaged only \$8.38 per car in its last full season — the lowest in history for Porsche and phenomenally low for *any* car.

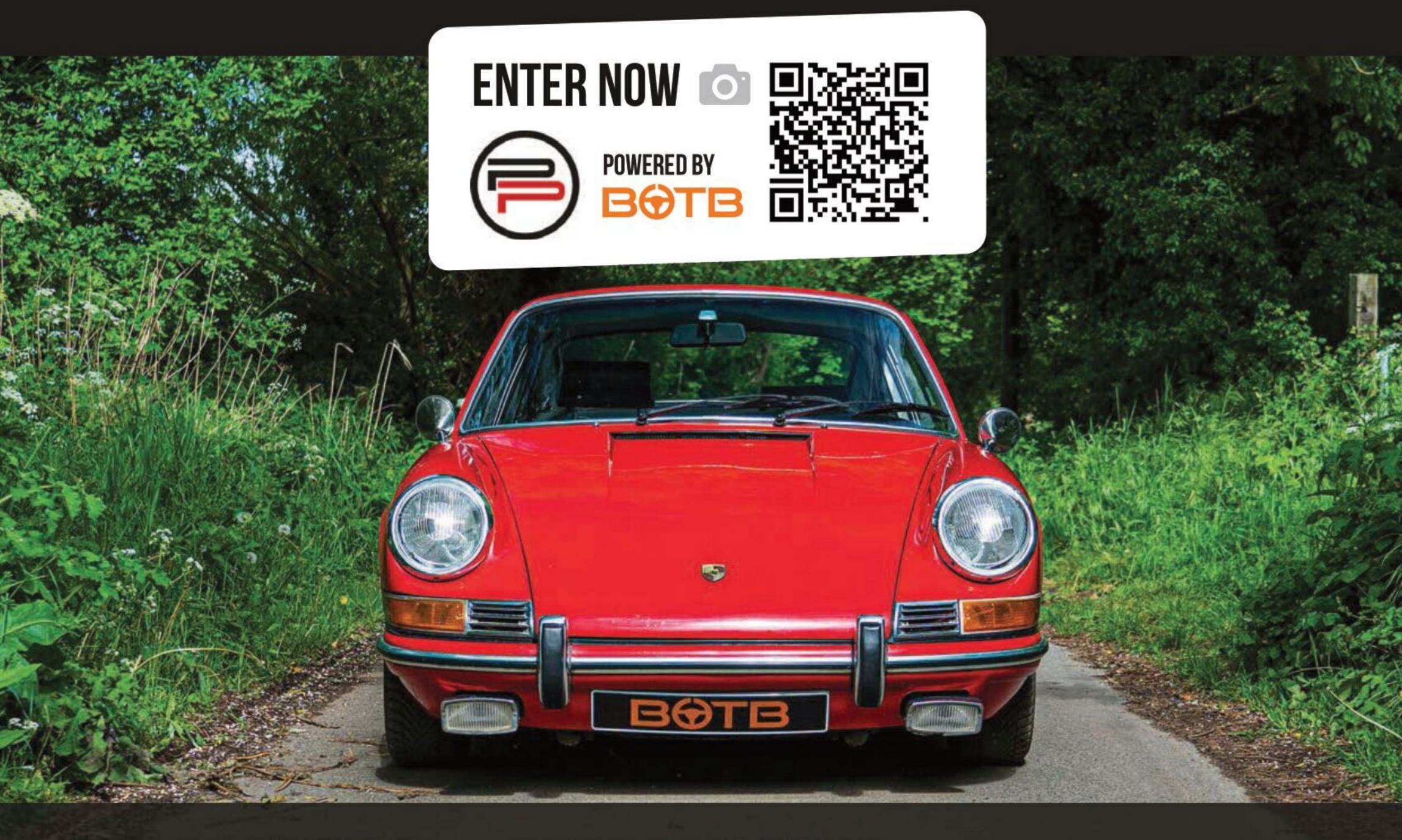
Production of the 356 C officially ended on April 28th 1965. On that day, the last of the breed, a flower-bedecked white Cabriolet, rolled from station to station

on the assembly line, five days after the Kardex invoicing of the final coupe. It brought the total number of 356 Cs built to 16,668 units, of which 126 were Carrera 2 models on the 356 C basis. The grand total of Porsches made under the Type 356 banner came to 76,303 -7,627 examples of the Type 356, 21,045 of the Type 356 A and 30,963 of the Type 356 B. This was not quite the end of the epic life span of a great car, though. "Manufactured for special customers", ten more 356 Cs left Zuffenhausen in May 1966. The special customer was, in fact, the Royal Dutch Police. These friends of Zuffenhausen had not been able to wean themselves away from Porsche's durable classic, an obtuse-looking little sports car that so baffled its critics and beguiled its adherents. Few of the many thousands still on the road are leading a friendless existence today. CP

Above A favourite venue for Porsche's photographers, Schloss Solitude was the background for the 356 C coupe and cabriolet, new for the 1964 model year



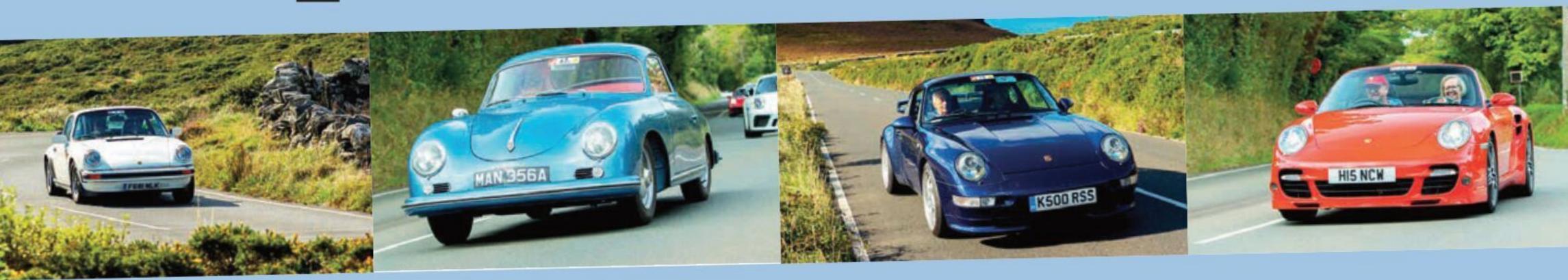
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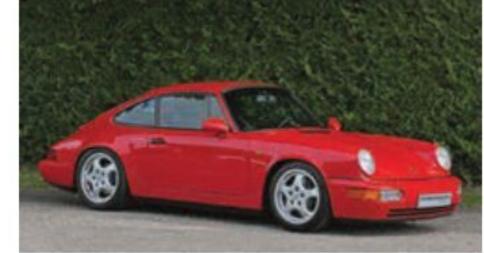
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### 911 Carrera 2 S (992)

Guards Red • Black Leather Sports Seats PDK Gearbox • 20/21" Carrera S Wheels Touchscreen Satellite Navigation Switchable Sports Exhaust • Sport Chrono • 7,605 miles • 2019 (69)

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GT Silver • Black Half-Leather Sports Seats • 19" GT3 Wheels • Sport Chrono Satellite Navigation • Previously Sold & Serviced by Paragon • 13,567 miles 2007 (57)

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# PRESENT AND CORRECT

Boasting an international client base, Retro Works builds bespoke 911s based on the 964 and 993 platforms. We visited the firm's production facility in Yorkshire to sample a 3.8-litre wide-body Targa...

Words Steve Bennett Photography Chris Wallbank







pparently, there are many ways to skin a cat, just as there are many ways to build a restomod Porsche. Conventional wisdom would have it that you must go to California and spend half a million, but we've heard it's just as nice in Wakefield, Yorkshire, which is why we're heading there to check out Retro Works and its take on building bespoke 911s for discerning customers. With typical Yorkshire understatement, Retro Works flies under the radar, but this hasn't stopped nearly sixty cars leaving the, er, works. Impressive and for good reason, as we'll discover.

Retro Works restomodder-in-chief is Rick Findlow. He didn't set out to build hot rod 911s, but then equally, it didn't just happen by accident. Back in the mid-2000s, when the Porsche market was a rather different place, Rick was a world-class athlete and found himself training in mainland Europe, leading him to import interesting left hookers into the UK. Think 968 Club Sports, BMW E30 M3s and Lancia Delta Integrales. Back then, of course, prices were within in the grasp of the many, rather than the few.

Of all the cars he was dealing in, Porsches were Rick's thing. By his own admission, he peaked with the acquisition of a couple of 993 Turbos. Again, these cars were once feasible for mere mortals, but even so, where do you go when you've effectively been to the top? "Backdating was very much the thing," he recalls. "I wanted a 911 a bit more basic. Classic, but with good usability. I built my first such Porsche in 2008. It was a Carrera RS 2.7 replica based on a Carrera 3.2. I sold it to a guy from New Zealand, who was working in London. He bought the car pretty much on specification alone." And so, the Retro Works story began. Further backdates were built, but very quickly, customers started demanding more. Consequently, each successive Retro Works 911 became more bespoke – stripped-out RS lookalikes became rather more usable, practical and desirable.

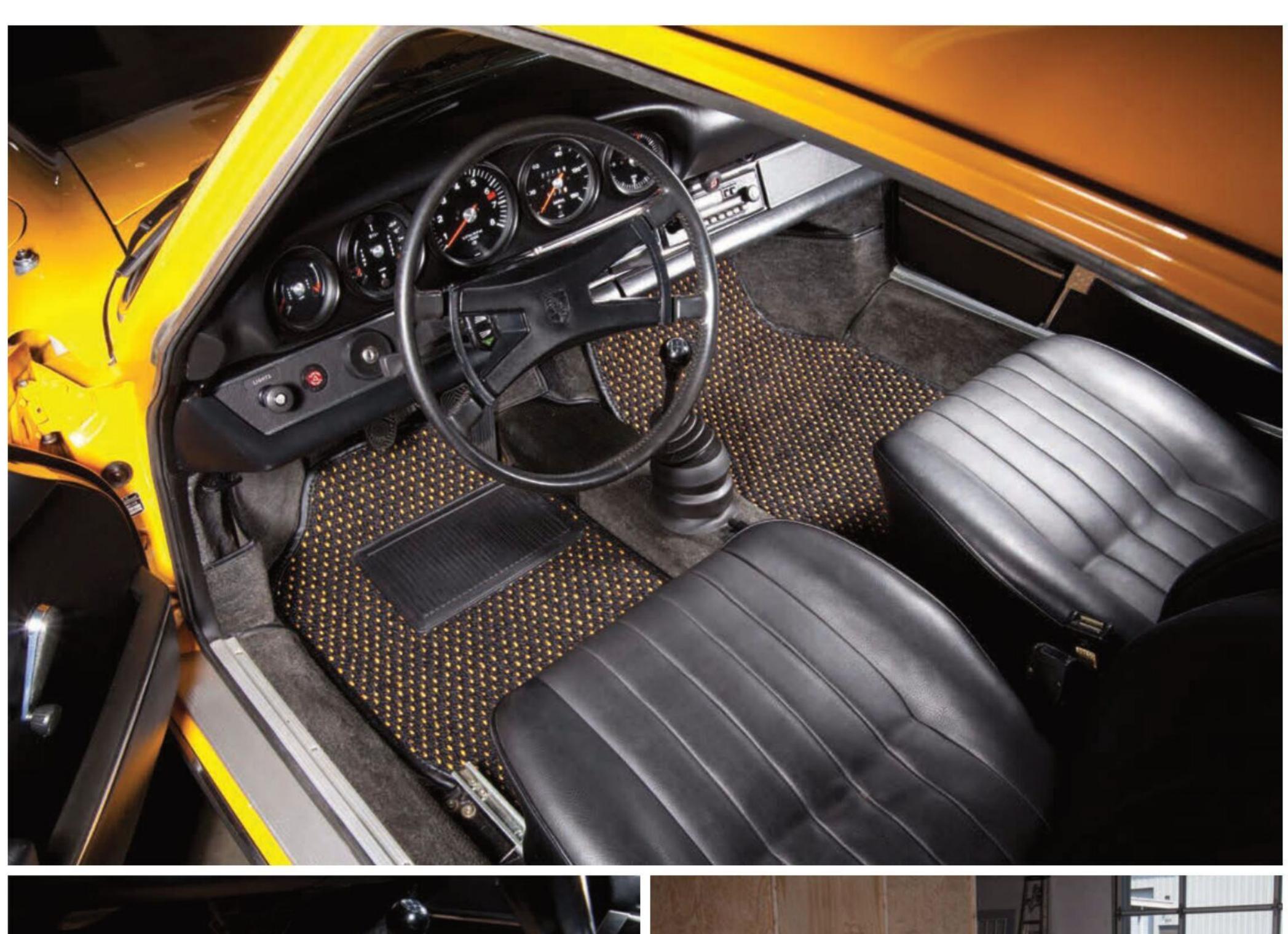
There was a donor car tipping point not exclusive to Singer Vehicle Design — the 'impact bumper', G-Series cars were perfect for RS replicas because, essentially, they shared much with the iconic model. It should be noted, Retro Works is still very much involved in this end of the market. In terms of creating something altogether different and even more usable, practical and desirable, however, attention inevitably turned to the later 964- and 993-generation 911s and the advances that came with them, such as improved engines, gearboxes, power steering and, in many cases, air-conditioning.

Creating the retro look on the 964 or 993 has its complications, but nothing insurmountable, although with no off-the-shelf solutions available, necessity was very much the mother of invention. In short, Rick and the Retro Works team were on their own in creating body panels for what would become the GTR range, based on both the 964 and 993.

Rick's right-hand man, Dave Gawthorpe, designed the bodywork. As a graduate of the Automotive Design

Above and below Heading for a new life Down Under, this Retro Works GTR 3.8 is one of the company's Targa offerings, based on the 964









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course at Coventry University, he's more than qualified, too. The look is very obviously RSR, all wide arches and fat tyres, but with a subtle and different take to others on the market. Achieving as much involves taking the donor car and completely dismantling it. Drivetrain and mechanicals to one side, the body comes first. By the time it is ready to accept the Retro Works panels, all that remains of the exterior is the original doors, roof and scuttle.

The obvious changes are the front wings, the rear quarters and sills, which are composite, structurally very

rigid and attach as per the original panels. In some respects, this is the 'easy' bit. There are fairly major differences between the front and rear of a 964 and 993,

### THERE ARE MAJOR DIFFERENCES BETWEEN THE FRONT AND REAR OF A 964 AND 993, IN TERMS OF HEIGHT AND STRUCTURE

certainly in terms of height and structure. The bonnet is a good deal shorter on a 993, if not so a 964, but both have to be reworked to accommodate the traditional long bonnet and slam panel required for the pre-1974 look. From there, a custom Retro Works front apron can be fitted.

It's a similar story at the rear. Both the 964 and 993 have more going on and more to accommodate. Again, structural changes are required for the rear apron and engine lid. It's a simpler job on a 964, whereas the 993 requires work to the inner wings to accommodate the new panels. Talking of which, and while we're very obviously testing a 964-based Targa GTR here, Rick and the team recommend the 993 when it comes to a

build. Indeed, Retro Works was arguably first out of the blocks to restomod a 993. Why the preference? "It's the last of the air-cooled cars and therefore the most developed and modern, with the ultimate air-cooled flat-six, including the Varioram version, not to mention the six-speed gearbox and the multi-link rear suspension," Rick explains. "Also, good 993s are more abundant when compared to the 964, primarily because they've been better looked after, such is the cachet of the later 911. The 964 really fell into the doldrums, and it shows in what's available on the market. It takes longer to find the

right car."

That said, a good, fit example of either 911 is head and shoulders above a G-Series car for what is required, and there are plenty who would

prefer a 964, thank you very much. The restomod world is very customer-driven, after all, with typical owners getting thoroughly involved in the build discussion. These bespoke 911s are destined not to be second or even third cars, but more often than not, part of a wider collection of Porsches.

We digress. In true Blue Peter here's one we made earlier style, let's bring in a complete bodyshell and then consider what we're going to attach. It goes without saying everything usable that comes off is fully refurbished or replaced entirely, particularly when it comes to brakes and suspension. Rick and Retro Works favour H&R adjustable coilovers for UK road compliance. Wheels are seventeen-inch Fuchs replicas built with the

Above 330bhp 3.8-litre flat-six is a bespoke configuration developed in partnership with FVD and built by Strasse, retaining the factory ECU





**Above** As per the exterior, GTR cabin can be customised in any material or style a customer so chooses

correct offsets, rather than relying on the crude solution of spacers. The effect is stunning, with a period perfect, deep dish look. All Retro Works cars leave with Michelin Pilot Sport 4 tyres (235/45 ZR17 on the front and special-order 275/40 ZR17 on the rear).

#### **WORD ON THE STREET**

Retro Works used to build engines in-house, but with a full order book, it was considered prudent to entrust another northern powerhouse, Strasse, just down the road in Leeds. This company's reputation very much precedes it in the air-cooled world. Unarguably, customers could just go standard and have the host 911's flat-six rebuilt, but the vast majority opt for Retro Works' own-specification engine developed in partnership with renowned Porsche parts retailer and tuning specialist, FVD Brombacher, based in Umkirch, Germany. That's to say a 3.8-litre unit packed with choice components and built up from a bare crankcase. Capacity comes from Mahle cylinders and pistons. FVD sport cams spin up titanium valve springs and

lightweight valves, with exhaust gases escaping via custom-made Cargraphic RSR headers, heat exchangers, sports cats and a centre-exit silencer. Crucial electronic control for fuel and ignition is via the standard (but remapped) ECU, rather going full bespoke, which can often be a compromise in terms of functionality.

Power? A more than adequate 330bhp, with oodles of big-capacity torque. Engine and gearbox in — the latter rebuilt, if need be, but a new clutch, obviously — suspension and running gear on and all that remains is exterior fixtures and fittings. Again, this depends on customer preference, but it's unlikely the Hella LED headlights are going to be questioned, such is the woeful performance of the standard candles. Indicators and sidelights are also LED. Brightwork is polished aluminium, while the exterior colour is whatever takes one's fancy.

The interior presents another opportunity for customisation. Anything is possible, although fortunately, most Porschephiles have pretty good taste. Dashboards get the early 911 look with leather weave insert. Door trims and furniture are custom-made, seats are classic in style, but modern in terms of functionality. Leather abounds and air-conditioning (even if standard on the donor) is served chilled via Classic Retrofit's very efficient electric system.

Seeing as interior specs, like so many other aspects of a restomod build, are purely personal, it's probably best to review and chronicle them based on the car that we have right here. The feature car, at last! Apologies, but we have to set the scene and Retro Works didn't get to this build out of the blue.

As already mentioned, this stunning Brewster Green machine is based on a 964 — a Carrera 2 at that. Significantly, it's a Targa, which makes a 964 donor essential if the trad-Targa look is what's required. As many of you will know, 993 Targas ditched the iconic rollover hoop and detachable roof panel in favour of a fancy, if complex sliding glass solution, which really wouldn't look right at all.











Above and facing page
Every aspect of a Retro
Works 911 GTR, be it a
964 or 993-based build, is
comprehensively overhauled

Below Steve took the car on a tour of the UK and mainland Europe before putting it on a ship heading in the direction of his home in Australia

This build is typical of where the market for restomods is, which is to say worldwide. In fact, at the time of writing, the car is currently on a boat to Australia, where it will arrive shortly before Christmas for lucky owner, Steve Day. Clearly waiting for Santa wasn't on the agenda -Steve spent three months touring the UK and Europe with his new toy, following collection from Retro Works in May. Not that he hadn't seen and experienced a Retro Works restomod before. He was able to check out and drive a car through the company's Australian agent, Gareth Grant at GG Consulting, based in Sydney. Steve's order was placed in 2021, but Australia's stringent COVID rules meant that Steve could barely leave the house, let alone the country, meaning the whole design and consultation process was completed by way of the internet. Leather samples and model 911s painted in Steve's preferred colours were mailed Down Under. Rick was entrusted with finding a suitable base 964 Targa for the build, which on this occasion, happened reasonably quickly.

At this stage of our story, it's probably worth looking at

exactly how long a Retro Works build takes. The headline figure is five months, but that's with the stars aligned and working on the assumption a suitable donor car can be found without any hitches. The timeline can be quicker if the customer already owns a 964 or 993 they wish to supply. As an example, Steve's build commenced in November 2021 and was finished in April 2022. Assembly doesn't start until all parts have been sourced or refurbished and are sitting stacked, shelved and ready to go, which seems eminently sensible.

#### **NUMBER CRUNCHER**

Financials? Vulgar as it is to talk about money, there is good news here. Impossible as it is to put a price on each individual build, Rick puts the average at around £150,000, including donor car. In the world of restomod Porsches, that's pretty good going. And it isn't just Yorkshire thrift, but a more pragmatic take on materials, particularly the body shells. Sure, dripping with carbonfibre (Singer and Gunther Werks style) is very nice, but it's also very, very expensive.

Back to Steve's car. It's a stunner, right? The colour combo of Brewster Green with Porsche Ceremonial Gold graphics, is just perfect. And check out the carbon clear panoramic hard top, supplied by German outfit, GTN Automotive. This is no style over substance — being far more rigid than the standard vinyl-covered panel, this transparent lid fits super-snug and cuts down on wind noise, a perennial issue with old-school Targas.

Interior detailing a-plenty. Terracotta and Tan

Newmarket extended leather covers all areas, with leather
weave inserts from Rick's Italian supplier on the seats,
door panels and dash. The dash top itself is covered in
black leather and benefits from the 964's much improved
ventilation. Orange stitching and orange detailing of the
instruments gives a kind of BRM vibe against the dark
green of the exterior. Black door cappings and dark grey
carpet offset nicely, while the Works Misano seats offer
electric heating for a lightly toasted bottom.





Typical of a car which is clearly going to be used, there are modern accoutrements, part of the restomod vibe. A Porsche Classic Communication Management (PCCM) digital radio and sat-nav system looks the part and is boosted by Audison amplifier and speakers, which are discretely hidden, but make all the right, high-quality noises.

A reversing camera takes the guess work out of highrisk manoeuvres, while the aforementioned Classic Retrofit air-con is a modern essential, in any climate. It would certainly have got some use in Steve's hands

first stop from
 collection was
 Anglesey to watch
 a friend race,
 and where the
 GTR Targa was
 besieged by fans,
 giving Steve an
 idea of the level

## ROOF OFF, SUN SHINING, CARGRAPHIC EXHAUST SINGING SONOROUSLY, IT'S REALLY A VERY SPECIAL PLACE TO BE

of attention that he might have to put up with. Drives to South Wales, London, Devon and Cornwall followed. Then it was a Channel hop for a spot of touring in France and Spain. Quite a trip, and one that went without a hitch, which is testimony to both the intrinsic bullet-proof Porsche reliability and Retro Works build quality.

Following a little whizz ourselves, we can only imagine what a tough trip it must have been. Not! Roof off, sun shining, Cargraphic exhaust singing sonorously, it's really a very special place to be, twirling the Momo Prototipo wheel and flicking through the quick-shifting five-speed gearbox. Immediately, there are two reasons why the later 964 and 993 variants lend themselves over earlier 911s: power steering takes the heft out of turns and those fat fronts (plus the later G50 transmission) is a major leap for Porschekind, even over late Carrera 3.2s.

Power isn't all about big numbers. Plenty might scoff at 330bhp from 3.8 litres. Sure, you could probably have more, but it's where and how the power is produced

which counts, which with this FVD-developed Strasse build is firmly in the mid-range, with a fat torque curve perfect for road use. It will rev (the FVD cams, lightweight internals and titanium valve springs make sure of it), but the meat of the curve is exactly where you want for rapid, unstressed progress.

Likewise, a road-compliant chassis is a must. You would have to be some sort of masochist to want an ultra-stiff ride in a build like this, which is clearly devised for distance and ease of use. The H&R coilovers deliver a ride and handling combo working in rare harmony with

the seventeen-inch
wheels. You could
have bigger, but as
you start to lose
tyre wall, ride quality
starts to suffer. I am a
bit of a chassis nerd,
I admit, but I've driven
so many modified

Porsches that have been wrecked by iron-fist suspension.

As a collective, then, this Retro Works Targa GTR does exactly that: it works. And this is the 964 version. A 993 build, with its further suspension advancements and sixspeed gearbox, is another step up and one I'd love to try.

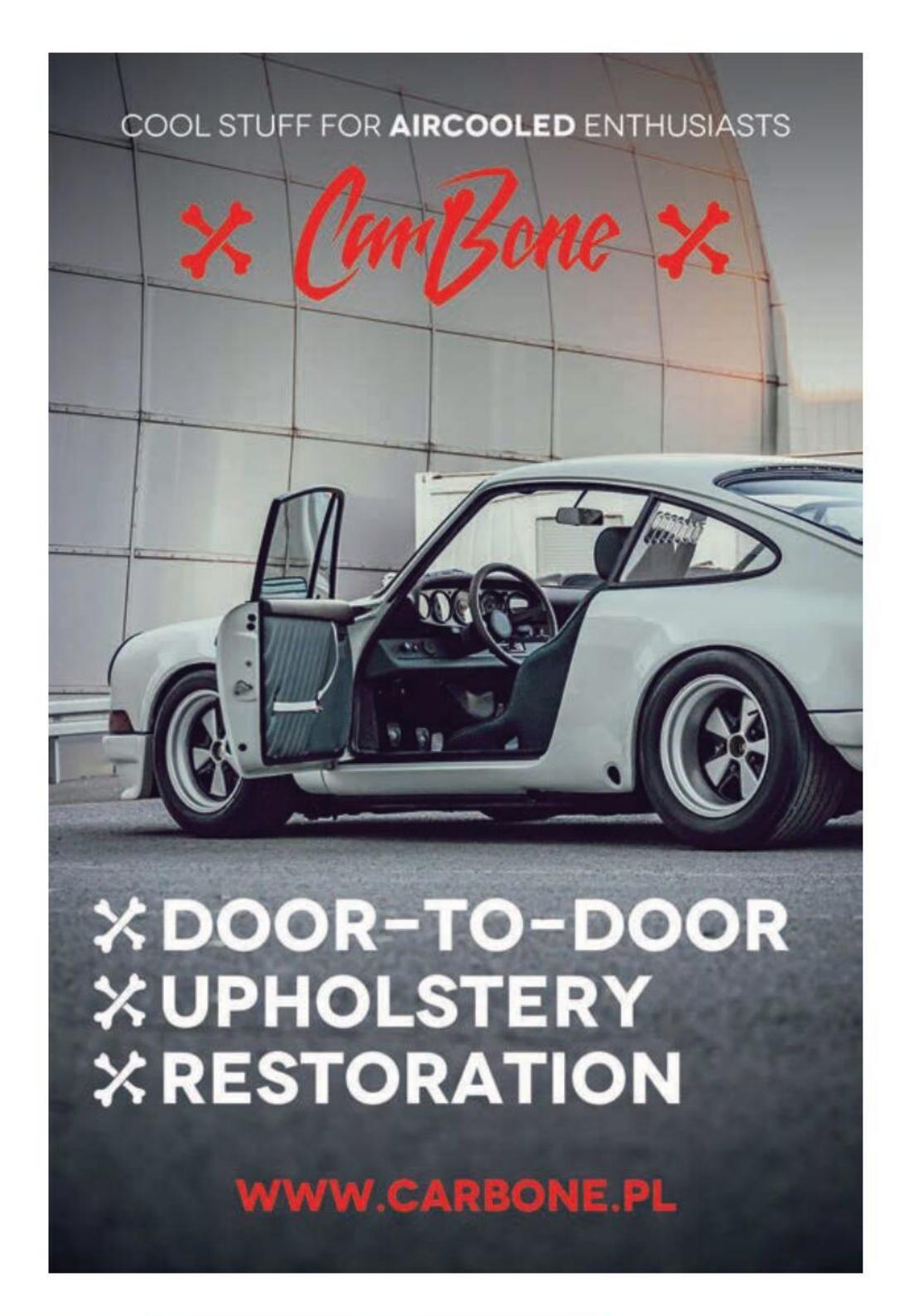
Tempted? If so, then a word to the wise. Get talking to Rick and the team now, because they're not sitting around waiting for orders — the next available build slot is September 2025, in part due to a big increase in international clients. And looking into the future? Electric isn't just on the horizon, it's a reality, with the first Retro Works EV now eighteen months old and running ULEZ-compliant and free of the dreaded congestion charge in London. More electric GTRs are on the way.

Is there a place for electric in *Classic Porsche*? Find out in our next issue. In the meantime, Christmas is coming, and while Steve might have opened (and driven) his present already, he does get to enjoy it all over again in Australia. He's clearly been a very good boy. **CP** 

**Above** Want one? Get your order in quick — Rick tells us the next available build slot is in the autumn of 2025!

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## FLICKING THE VEES

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FOR DETAILS

The symbiosis between Porsche and Volkswagen was exemplified by the Stuttgart company's role in the establishment of Formula Vee in Germany. Porsche's Austrian sister brand also had an important role to play...

Words Karl Ludvigsen Photography Porsche

he saying 'failure is an orphan and success has many fathers' is a well-known axiom. It was never truer than in the instance of Formula Vee's launch in Europe, in which Porsche played a major role. This racing class, based on the extensive use of near-standard Volkswagen drivetrain and suspension, actually had its origins in sunny Florida.

In 1959, Formula Junior was all the rage, a class for single-seaters using standard 1.1-litre engines, but allowing design freedom otherwise. Florida-based racing enthusiast, Hubert Brundage, decided the series would suit Volkswagen's flat-four engine and commissioned Turin's Enrico Nardi to fashion a Formula Junior from Volkswagen raw material. As Brundage's Brumos dealership was America's south-eastern distributor for

both Porsche and Volkswagen, this project was right up his street, though the result didn't measure up to his hopes — the air-cooled Volkswagen engine couldn't cope with the might of the Fiat fours powering the early Juniors. A retired Air Force colonel, George M. Smith, however, saw promise in Brundage's concept. Smith's vision was of a one-make category for cars akin to sailing's Star class, which gained a reputation as a breeding ground for the 'poor man's racing yacht'. A Beetle-based single-seater, Smith thought, could serve the same purpose in motor racing.

After competing with the Nardi-built car through 1961, Smith sparked the establishment of Florida's Formcar Constructors Inc. to produce such vehicles in series. By the end of that year, several of his cars were racing. In 1963, more were campaigned, showing the merits of this simple but effective concept. Then, in 1964, the

**Above** Porsche works driver, Patrick Pilet, in his treasured Formula Vee race car





Above Baron Fritz Huschke von Hanstein (left) joined Porsche in 1952 and was not only in charge of the press office and Porsche's motor racing activities, but was also a successful works driver, photographer and film-make

Right Florida-built Formcar
Vees were patterned directly
on the Nardi design, albeit in
fibreglass — this is one of the
Formcar Vees imported and
assembled by Porsche

Below As seen in this 1967 contest campaigned by racers produced by early adopter, Kaimann, Formula Vees were getting more sophisticated, with anti-roll bars installed front and rear Sports Car Club of America ran the first Formula Vee National Championship. Rules were set allowing any manufacturer to produce participating cars, albeit to a strict set of guidelines. By 1965, some seven hundred Formula Vee

single-seaters
were introducing
Americans to
the fun of openwheeled racing.

In these natal years of Formula Vee, Carl Hahn ANY RESERVATIONS PORSCHE HAD WERE CERTAINLY EASED BY THE APPLICATION OF HAHN'S HUNDRED THOUSAND DEUTSCHMARKS

headed Volkswagen of America. He witnessed with fascination the growth of this new racing class based on Beetles. "During an Easter holiday in the Bahamas," he said, "my wife and I enthusiastically drove Vee, though not in races." Hahn, a success in America, was soon recalled to Wolfsburg to take over sales for Volkswagen.

"Back in Germany," he recalled, "the idea soon arose to bring this popular form of motorsport from the USA to the European continent." He approached his chief, Heinrich Nordhoff, with the idea. "Nordhoff gave me his

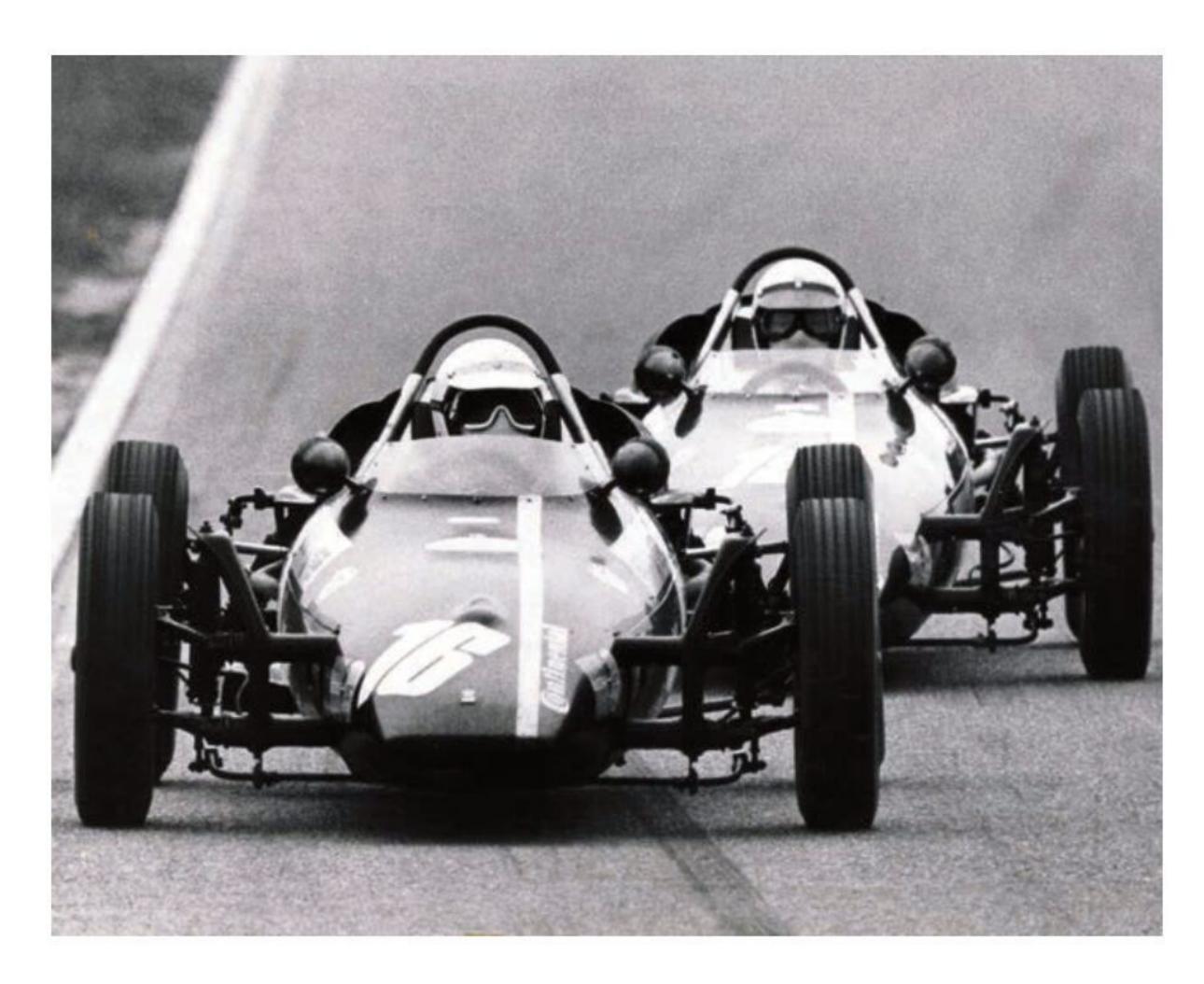
permission," added
Hahn, "along with a
budget of DM100,000.
With the help of Ferry
Porsche and his racing
director, Fritz Huschke
von Hanstein, the
cost-effective Formula
Vee racer became

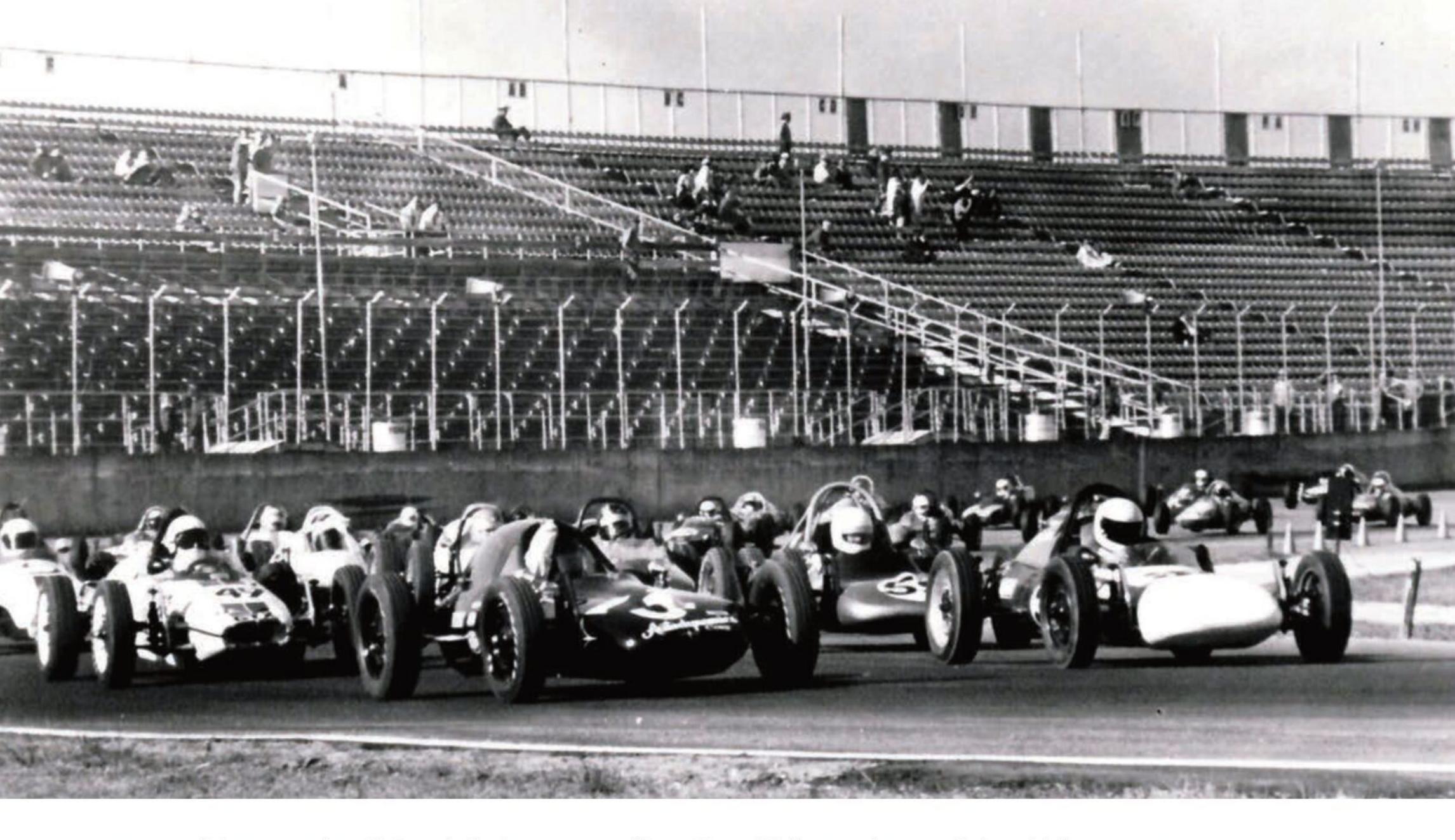
numerically the world's biggest racing-car category overnight. There were two and a half thousand of them!

As far as I was concerned, Volkswagen couldn't lose."

Huschke von Hanstein recollected the sequence of events differently. He was president of the ONS, Germany's highest motorsport authority. Of his time in this role, he said, "I was concerned, because in Germany, unlike in neighbouring countries, very little was being done for future generations in motorsport. When I saw a small, affordable race car at one of our American dealers, I became quite excited by its prospects. The car consisted of a custom body sprung by Volkswagen suspension components." This sighting would have been during a visit to Brumos in the course of a Porsche entry at Sebring.

In Huschke's telling of the story, he returned to Stuttgart and "attempted to convince Ferry Porsche to establish such a racing series in Germany. It would give a tremendous press relations boost to motorsport and, of course, for Porsche as a company." Ferry was sceptical at first, primarily because the cars used Volkswagen components. According to Huschke von Hanstein, he then took his idea to Hahn, who was still in his chair for Volkswagen of America. Getting Hahn's assent to the scheme, Huschke arranged for the VW man to meet with himself and Ferry Porsche during his next trip to Germany. In the subsequent meeting, Ferry was apparently won over and the European Vee project





was approved. Any reservations Mr Porsche had were certainly eased by the application of Hahn's hundred thousand deutschmarks, at the time equivalent to a not insignificant \$25,000.

Early in 1965, Porsche imported ten Formula Vee bodies — both Beach and Formcar designs — and installed Volkswagen powertrains to launch this accessible form

of racing in the
Beetle's native
land. Huschke von
Hanstein's modus
operandi was to
take the show on
the road, putting on
short demonstration

#### AUSTRIAN STARS IN THE CATEGORY WERE FUTURE FORMULA ONE CHAMPIONS, JOCHEN RINDT AND NIKI LAUDA

races in key cities with invitations to local hot shots to try their luck in these odd-looking racers. The first fleet was then placed without charge at the disposal of the big clubs, the AvD and ADAC, as a way of giving *Formel Vau* a running start. The first serious races, held in the summer of 1965, had the desired effect.

"Our success surprised us," Huschke admitted. "We only wanted to see how much interest there was and whether companies could be found to build the cars. The matter took off on its own. In short order, several clever young men had built their own tiny racers based on American Formula Vee bodies." With Huschke in charge at the ONS, it took no time at all for Formel Vau rules to be drawn up and approved. While American Vees were permitted to run 1.2-litre engines, the European rules catered for the Volkswagen's 1.3-litre flat-four, since it was the more common capacity in the Old World. For the class's first two years in Germany, it was supported at each event by two Porsche engineers. They checked the cars for safety and rules conformity before and after each race, as well as being on hand to provide technical advice.

"Anton Konrad, Volkswagen's press relations chief, was manager of this racing series," Hahn later related. 
"He found enthusiastic support from our main dealers and importers. This broke the ice. For the first time, 
VW and motorsport found each other." Factory support continued until 1976, after which, the Wolfsburg crew 
left race car development to private hands. Earlier, other

categories had been added, such as 1971's Super Vee, introduced to accommodate 1.6litre engines and more sophisticated chassis designs.

At Leonberg, near

Stuttgart, Fuchs produced a *Formel Vau* car recognised for being exceptionally trim. Near Bonn, another company got into the act with its Gepard Vee. Added to the ranks from early 1968 was McNamara Racing, at Lenggries at the foot of the Bavarian Alps. Sounding

Above A crowded field following a start at Hockenheim in 1967 showed how popular Formula Vee became in Germany after its launch by Porsche and von Hanstein.

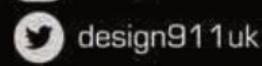
Below A packed Nürburgring paddock was ample testimony to the acceptance of Formula Vee, although both VW's Carl Hahn and Porsche's von Hanstein claimed to have started it



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anything but German, McNamara was established by American Midwesterner, Francis McNamara, who caught the racing bug while with the US Army in Germany and decided to build cars of his own. "We couldn't buy what we wanted," said the man whose 'Sebring' Vees were highly successful. The goateed McNamara went on to produce cars for higher categories all the way up to Formula 2 and, surprisingly, an Indianapolis racer designed by Jo Karasek, a former Porsche engineer.

#### SISTER ACT

Just as they had in Germany, the cheeky Vees sparked strong motorsport participation in Austria by the nation's Volkswagen importer, Porsche Salzburg. There, Ferry's sister, Louise Piëch, and her son, Ernst Piëch, took up the new category with verve. Among others, Austro and Bergmann produced Vees, making Austria a leading source of the new racers. At Salzburg, Paul Schwanz specialised in engine preparation for the formula.

A key actor in both versions of the story of Formula Vee's launch in Europe, Huschke von Hanstein could be proud of what he'd achieved. The cars, he enthused, were "dirt cheap and you could take them to races on a lightweight trailer. Interested hobbyists could buy the appropriate parts directly from Volkswagen. It was then only a question of their own skills and aesthetic sense for what body they dropped on the frame. Tyres, suspension, transmission and engine were identical for all competitors and easily checked by the organisers. In Formula Vee, anybody who came out ahead of his competitors was truly a better driver because their equipment was identical."

That Vees provided a suitable training ground for talent was verified by the results — Huschke von Hanstein's aim of a step up the ladder for his homebased talent was achieved. From the Vee ranks came leading German drivers, Jochen Mass, Harald Ertl and Klaus Niedzwiedz. Austrian stars in the category were

future Formula One champions, Jochen Rindt and Niki Lauda, as well as Helmut Marko, winner of the 1971 24 Hours of Le Mans (in the magnesium-framed Martini Racing 917) and today the *eminence grise* of Red Bull Racing. Nelson Piquet and Emerson Fittipaldi — the latter went on to produce Vees in Brazil — also cut their teeth driving these racers.

"For me, the circle closed in 1990," said Hahn, without whose support and subsidy the European breakthrough might never have happened. "That's when we honoured Michael Schumacher for his Golf-powered German championship in Formula 3." With a little help from Porsche, Volkswagen had indeed broken the ice to go on to success in motorsport. The Vee also sparked the competition activity of Porsche Salzburg, whose backing of major endurance racing entries was key to the success of the immortal 917, winning as it did in the company's colours at the 1970 24 Hours of Le Mans, arguably Porsche's most important motorsport achievement. **CP** 

Above In 1975, the then new Nürburgring layout witnessed this battle among Super Vees, complete with wings for downforce and more powerful engines, offering drivers a further step up the motorsport ladder

Below By the mid-1970s, Vees had become much more sophisticated, as shown by this Karringer driven by Swiss, Marc Surer, who went on to race in Formula One

Facing page Having backed the launch of Formula Vee through Porsche with cash, Volkswagen took advantage of the fact by producing this ad in 1967, stating "eight million people drive to work daily with most of this car"



80 December 2022



#### Mit dem größten Teil dieses Wagens fahren acht Millionen täglich zur Arbeit.

Denn ob Sie es glauben oder nicht: Der größte Teil dieses Wagens ist ein VW.

Das Ganze heißt Formel V. (Vau, nicht fünf.) Und kommt, wie viele verrückte Ideen, ursprünglich aus Amerika.

Dort hatten sich ein paar Studenten darüber geärgert, daß sich nur reiche oder arrivierte Fahrer einen Rennwagen leisten können.

Sie kamen deshalb auf die Idee, sich aus selbstgestrickten Karosserien und den wichtigsten VW-Teilen, wie Kupplung, Getriebe, Bremsen und Motor, Rennwagen zu bauen. VW-Teile, so wußten sie nämlich, sind robust, leicht zu reparieren und nicht teuer. Außerdem hat der VW-Motor Eigenschaften, wie man sie bei Rennwagen liebt: Er ist leicht, luftgekühlt und liegt direkt an den Antriebsrädern.

Die Dinger wurden bald — als eigene Klasse — in das bestehende Motorsport-Reglement aufgenommen. Seit 1965 flitzen sie auch über deutsche Pisten.

Zum Beispiel über den Nürburgring. Wo der Österreicher Günter Huber am 7.8.66 nur zwei Minuten hinter der besten Rundenzeit blieb, die Weltmeister Jack Brabham am gleichen Tag mit seinem 290 PS stärkeren REPCO-Brabham erreichte.

Verschiedene Hersteller bieten Formel V Wagen an. Und zwar komplett oder als Bausatz zum Selberbasteln. Jeder VW-Händler kann sie Ihnen besorgen.

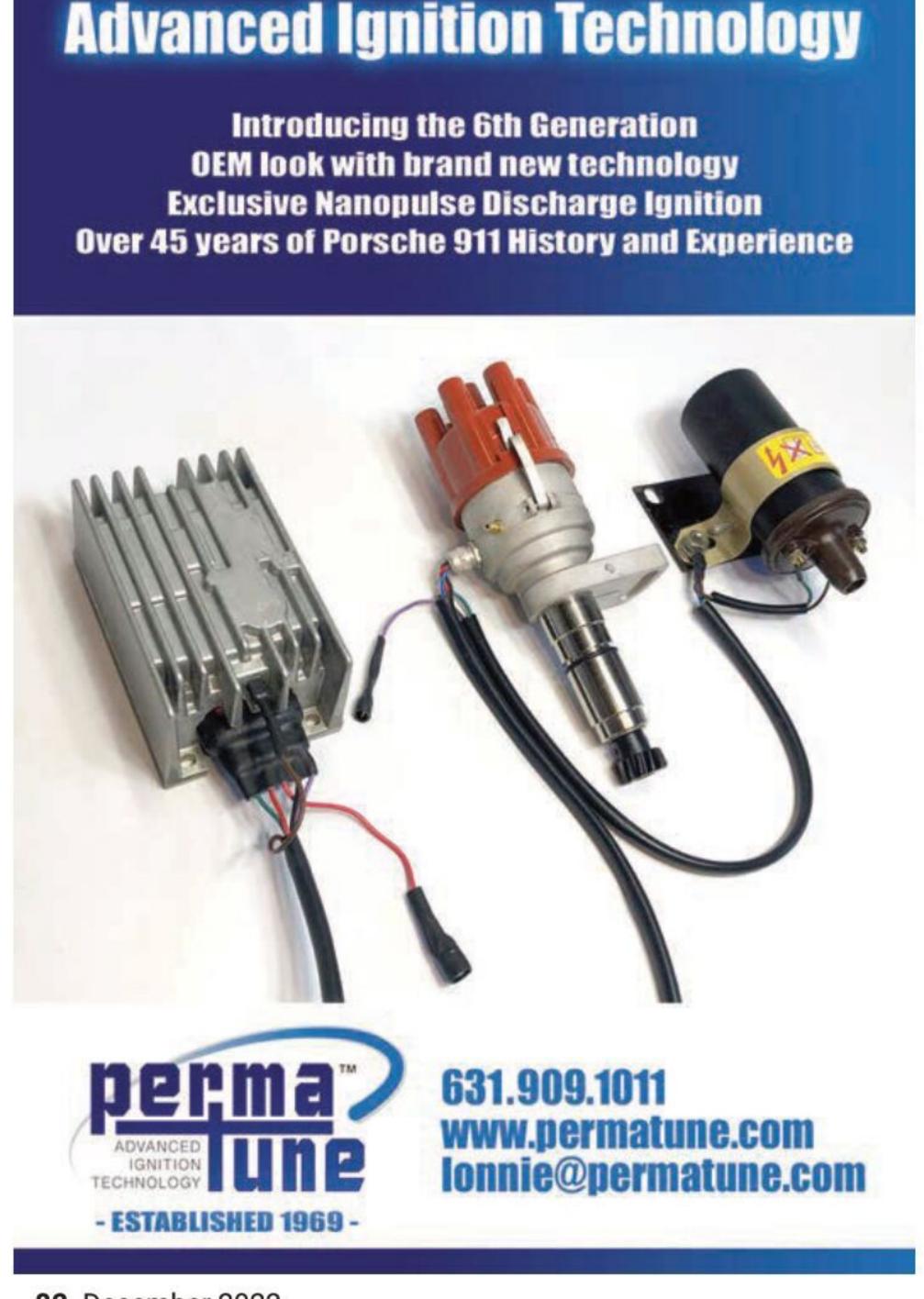
Sie sollten sich diesen Spaß aber nur leisten, wenn Sie wirklich Rennen fahren wollen.

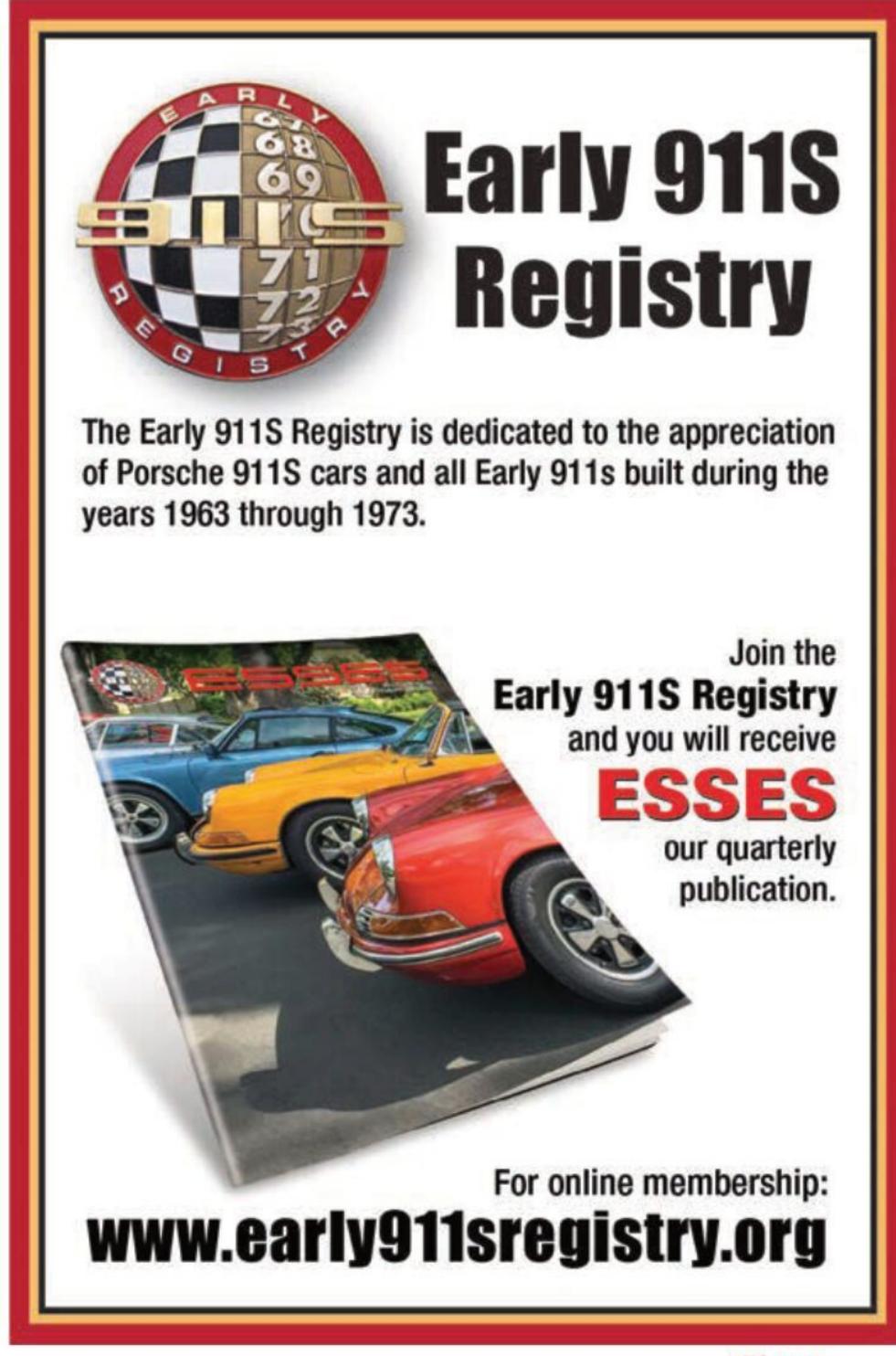
 $\Omega$ 

Um zur Arbeit oder ins Grüne zu kommen, ist ein normaler VW schnell genug.









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Porsche spare parts for all models since 1950



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Surface variant: Star black or anodized

Dealer enquiries are welcome



#### 16"-Fuchsfelge

6J x 15 | ET 36 | 461,34 € 6J x 16 | ET 36 | 536,97 € 7J x 15 | ET 23,3 | 478,15 € 7J x 16 | ET 23,3 | 494,96 € 8J x 15 | ET 10,6 | 486,55 € 8J x 16 | ET 10,6 | 520,17 € 9J x 15 | ET 3 | 528,57 € 9J x 16 | ET 15 | 536,97 €

#### Steel wheel

Design: OE look steel - colour: silver

Dealer enquiries are welcome

#### 15"- Steel rim

4,5 x 15 | ET 42 | 227,00 € 5,5 x 15 | ET 42 | 239,90 € 6,0 x 15 | ET 36 | 259,00 €

all steel wheels with ECE number



#### Steel wheel

Design: OE look steel - colour: silver Dealer enquiries are welcome

#### 16"- Steel rim

5,5 x 16 | ET 15 | 259,00 € all steel wheels with ECE number





When Classic Porsche reader, Mark Paine, embarked on a journey to Karmann Konnection in order to buy an engine for one of his Volkswagen projects, he didn't anticipate coming away with a 1956 356 A coupe...

Words Mark Walker Photography Paul Knight







ark Paine wasn't looking to buy a 356. He drove to Karmann Konnection's base in Essex to buy an Okrasa performance engine for one of his many Volkswagen projects. The 356 you see here just happened to be sitting in the company's showroom with a 'for sale' in its window. For most people, an impulse buy while out shopping constitutes a pack of Extra Strong Mints when paying for petrol or picking up a Hot Wheels die-cast model en route to the supermarket checkout. Not for Mark. He walked away with the Okrasa motor and a very cool 356 Outlaw.

Mark has been involved in the air-cooled Volkswagen scene for almost four decades. The cars he owns are the fruits of hard work and his evolving taste in air-cooled machinery from Stuttgart and Wolfsburg. His current fleet includes a world-class custom 'Barn Door' splitscreen Camper, which recently appeared on the cover of our sister title, Volksworld. After having the bus built at Barrow-in-Furness-based Volkswagen restoration outfit, Irv's Restorations, he had no hesitation in calling up company boss, Paul Irving, and asking if the team would respray his newly acquired 356. Not because it needed painting, you understand, it's just Mark discovered the car was originally finished in the shimmering Graphite grey it now wears - when he first laid eyes on the Porsche at Karmann Konnection, where the firm's Managing Director, Ritchie King, had agreed to help shift the car for a longstanding customer, it was covered in a coat of bright white with a blue stripe down the middle.

Irv's being Irv's, Paul didn't just scuff it 'n' shoot it, but stripped the Porsche back to a bare shell and blasted it to ensure his team were clear about the condition of metal they would be working with. The body was found to be rock solid, a consequence of the car spending the majority of its life in Arizona. A simple matter of fresh paint and reassembly, then? It sounds easy when you say it quickly.

At this point, we should mention how the car had been

bought without bumpers and, although the previous owner had the original parts in storage, he wasn't happy to include them in the sale without Mark committing to additional spend. Odd, huh? Still, they were the factory bumpers. Though he wasn't particularly happy about having to stump up extra cash, he eventually agreed to the seller's demands, recognising the parts could be forever out of reach if sold to another enthusiast.

**RUFFLED FEATHERS** 

The car had been Outlawed by an earlier owner in the USA, an octogenarian by the name of Roland Peacock, a Porsche nut who also happens to own an original 356 Speedster. Being a 1956 'beehive' T1, the 356 A Mark ended up with is just that little bit more special to him than the 1957 T2 he used to own. "There's just something about those early rear lights I love." We can see why.

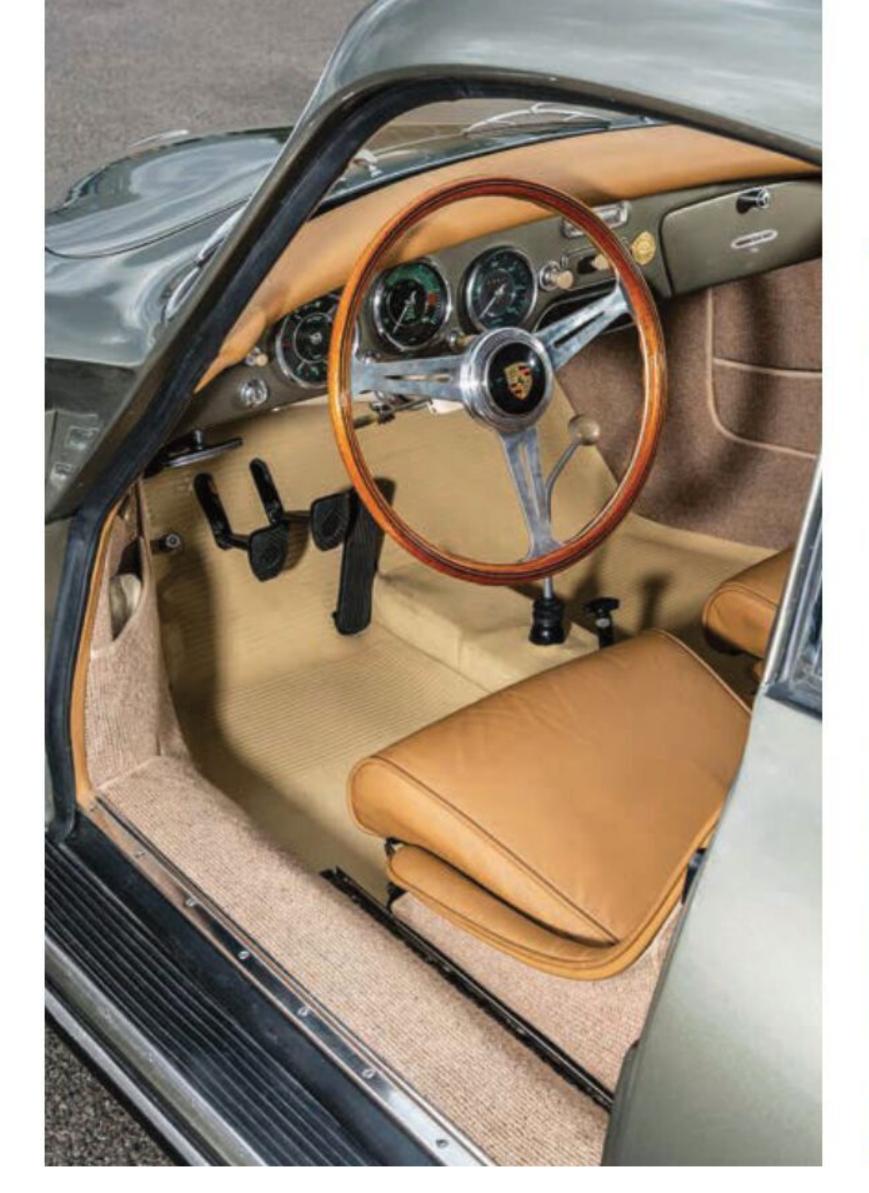
The story goes that Roland wrecked a 356 B, resulting in him swapping its engine, disc brakes and seats into the 1956 machine. "It drove okay, but not well," Mark sighs. "When I made the decision to change the body

Above Next time you're heading out to buy an engine, perhaps you should take a little extra cash with you?!

**Below** Flat-four needed a rebuild and now boasts 1,720cc displacement



86 December 2022





Above and below The shell was bare-metal blasted and restored, the interior similarly overhauled, complete with Karmann Konnection seats and steering wheel

colour, I knew I'd make other alterations, a process which accelerated swiftly after an enlightening day spent in the Irv's Restorations workshop. I was there with Ritchie and his colleague, Paul Boosey, to give the car a thorough

inspection. Ritchie just started pulling it apart, pointing out to me all the things which were incorrect. I commissioned him to take delivery of the car when

## THE ENGINE WAS DETAILED TO MATCH THE QUALITY OF THE NEW PAINTWORK AND FINISHED OFF WITH A SEBRING-STYLE EXHAUST

painted, at which point he could spend time working through it, righting as many wrongs as he could find."

Mark is quick to point out that this was no reflection on the work done at Irv's. "It was all geeky technical 356 stuff, like the rear grille not having the correct screws, the incorrect headlamps being used and a load of other things that were perfectly presentable, but not *right*. Truth be told, most people wouldn't have spotted any of this,

but then Ritchie isn't most people, and once I knew the parts were incorrect, I couldn't stand the idea of leaving them that way." Karmann Konnection soon accepted the car back to its workshop, beginning corrective work

by attending to the engine, which "wasn't running as intended."

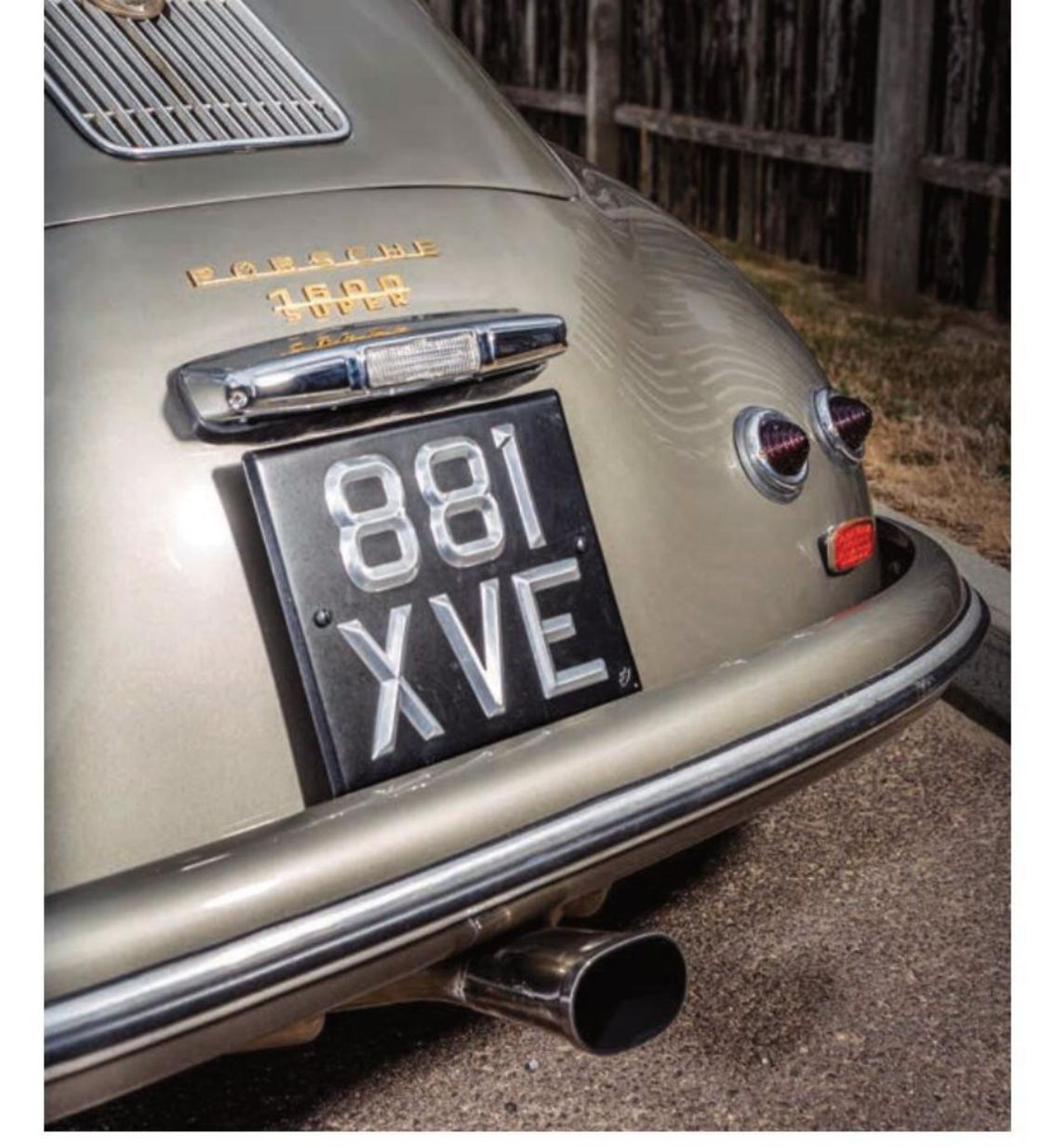
The flat-four
was eventually
diagnosed as
having scored
cylinders. The unit

was subsequently given a top-end rebuild and boosted to 1,720cc of displacement. The original Zenith 32NDIX carburettors were also pretty worn, a condition leading them to be replaced with Webers, protected by a pair of Vintage Speed air filters. The engine was then detailed to match the quality of the new paintwork and finished off with a Sebring-style exhaust.

Previous rolling road results demonstrated 75bhp at the flywheel, but following the overhaul, the rebuilt boxer is now developing 81.5bhp at the wheels — a useful hike in power in a car as light as this. Meanwhile, the dash gauges were rebuilt, as were the window regulators. 1956 model year wipers went on, headlamps with raised Bosch logos were sourced and a period-correct number plate light was installed. A new fuel tank went in, along with new rear luggage straps. A number of repairs were made to the wiring loom. The final touch was a red tip for the Hirschmann aerial — Karmann Konnection turns them up in house — which adds a small pop of colour to an otherwise subdued exterior.

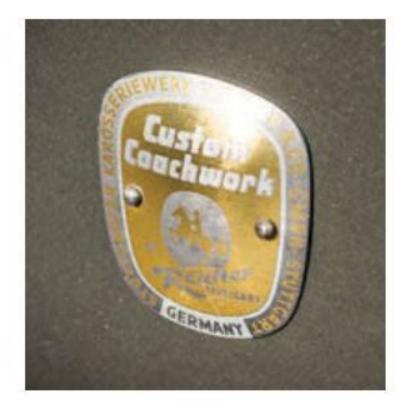
Of course, all this is stuff most owners would have been happy to live with as was, but following feedback from Ritchie, Mark wanted to enjoy every moment behind the wheel, which he deemed only possible if having all the aforementioned work carried out. He also decided to make some further upgrades while the car was in Karmann Konnection's possession, such as a wealth











Above Sebring-style exhaust makes a noise suggesting there are far more cylinders at work beneath the decklid

Facing page Graphite grey replaces the white paint and blue stripe the car was wearing when Mark first saw it at Karmann Konnection's Essex headquarters of sound deadening material (covered in bitumen paint to replicate a factory look) and installation of one of Ritchie's VDM GT wood-rim steering wheels.

Paul Boosey was tasked with project managing the job. "It was nine weeks of pain!" he cries. "I'd take the car for long drives and, each time without fail, I'd come back with a

list of things needing to be sorted. Deep six-inch Fuchs were fitted at that stage, but Mark decided to change the fronts for 4.5s in order to tuck in a little more at the nose. We wrapped the wheels in UK-made Blockley Tyres black circles, products I rate highly."

The Porsche certainly drove better, but Mark felt the interior didn't look quite right, hence his purchase of Karmann Konnection Carrera replica seats, which were

## HE ADMITS TO THE CAR BECOMING MORE OF AN OCCASIONAL DRIVER IN RECENT MONTHS

sent to automotive upholsterer, Sam Trigg, for a full retrim in tan hide, along with the rest of the interior. It was well worth the effort, as Paul explains. "I took one

of our 911-owning customers out for a ride in this 356 to a local cars and coffee event. He couldn't believe an old Porsche like this could drive so well and so smooth.

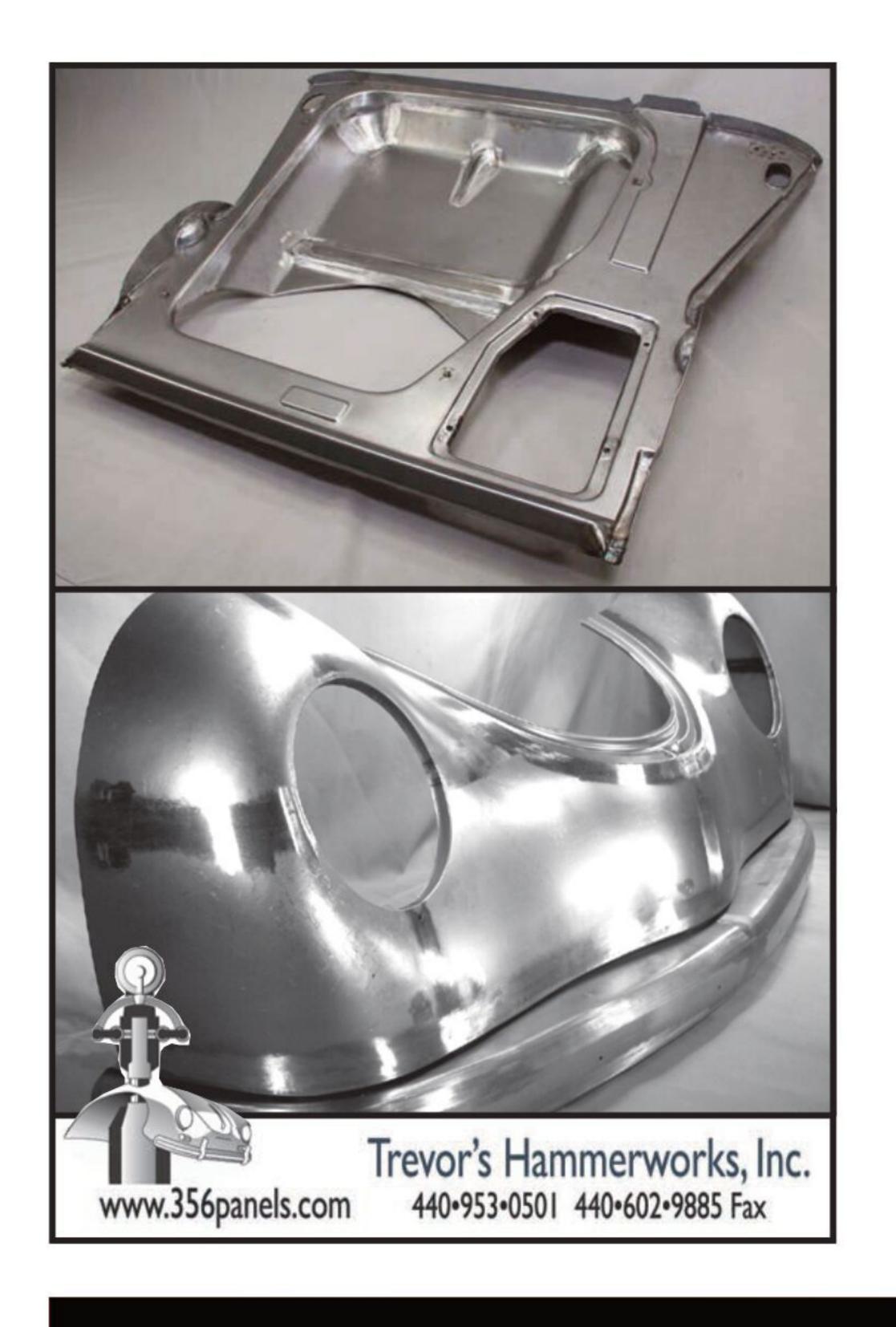
They generally don't, of course, but this one is an excellent example of how good a 356 can be with the right care and attention."

#### THE BEST AND THE REST

"Mark is a bloody great customer," he continues. "He's a straight shooter and easy to deal with. He understands old Porsches and the level of blood, sweat and tears involved in making a tired one good again. Recognition of what's involved is of high importance if you're going to go to overhaul a 356 to this level." The praise continues as Mark tells us how well the car now drives. "It's such a good 356. It's a great driver and sounds amazing. I own fast Beetles but, with the monocoque body sitting lower over the suspension, the Porsche is so much stickier on the road, making it a more immersive drive than an old Volkswagen. I'm sure the Blockley rubber helps, too. I'd go as far as to say this is the best car I've owned." Given his collection, that's quite the accolade.

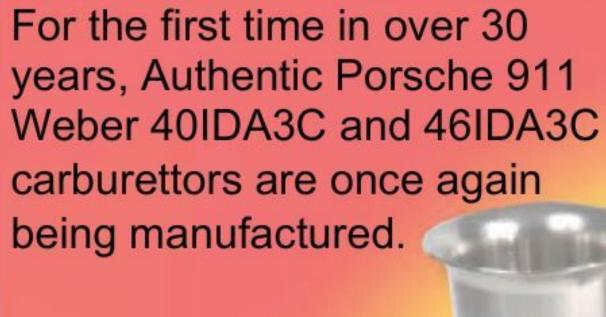
Although he loves being behind the wheel of this revitalised 356, he also admits to it becoming more of an occasional driver in recent months. "The market has changed dramatically in the five years I've owned this Porsche," he recognises. "It was a five-figure 356, but it's now a six-figure 356, which is mind-blowing." Thank goodness he had the foresight to buy it when shopping for that Volkswagen engine! **CP** 







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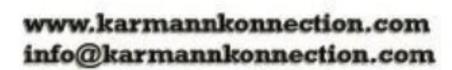


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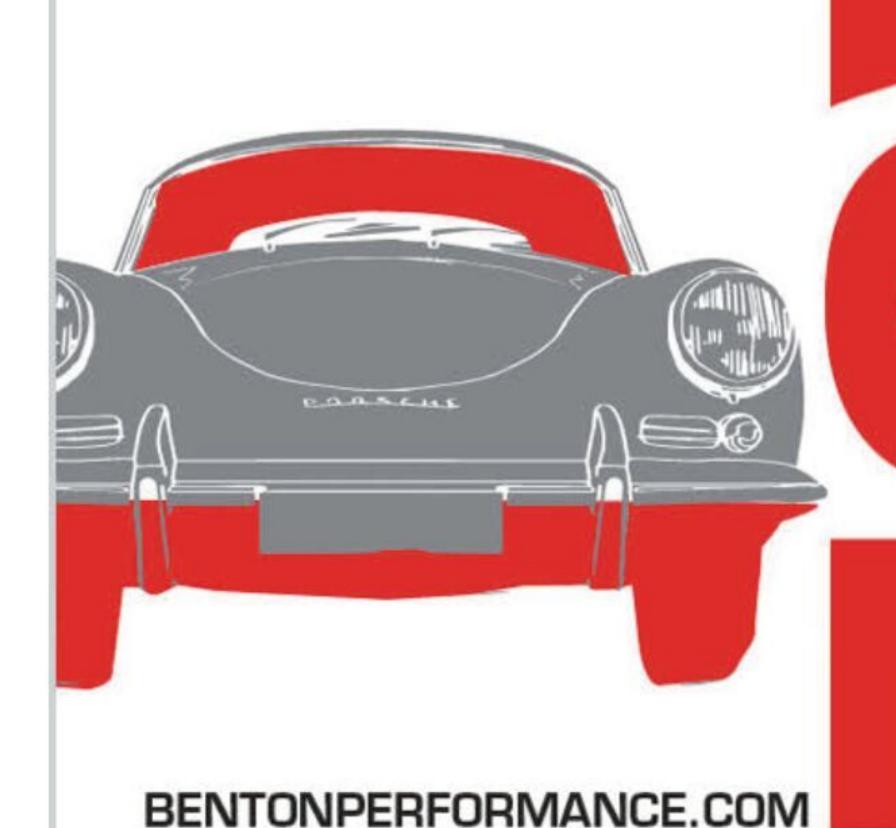








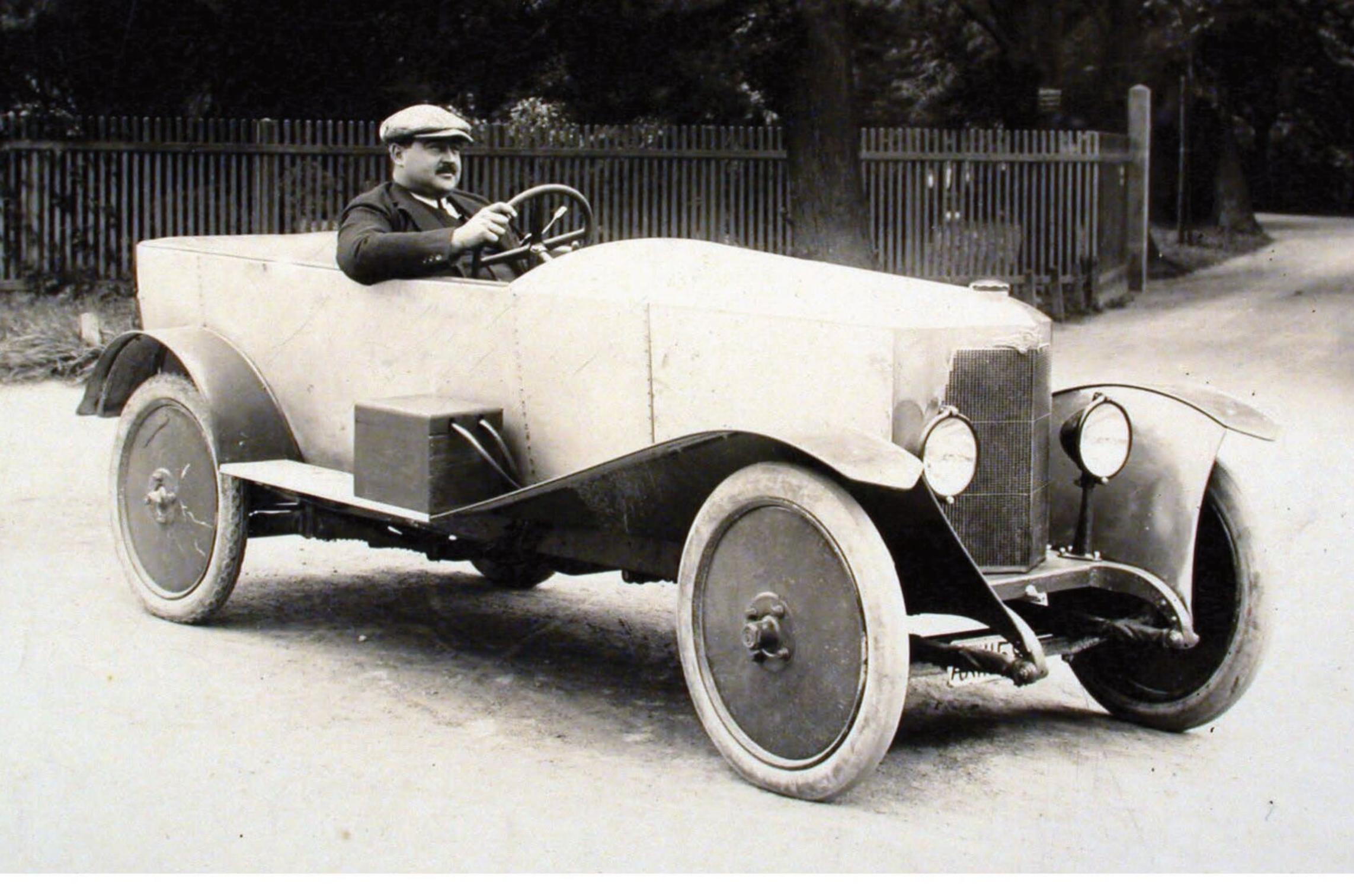








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## PORSCHE'S FIRST VOLKSWAGEN

A partnership between a wealthy enthusiast and a talented engineerexecutive created an Austrian small car which had the potential to be a world-beater. All that was required was the boldness to build and sell it...

Words Karl Ludvigsen Photography Porsche

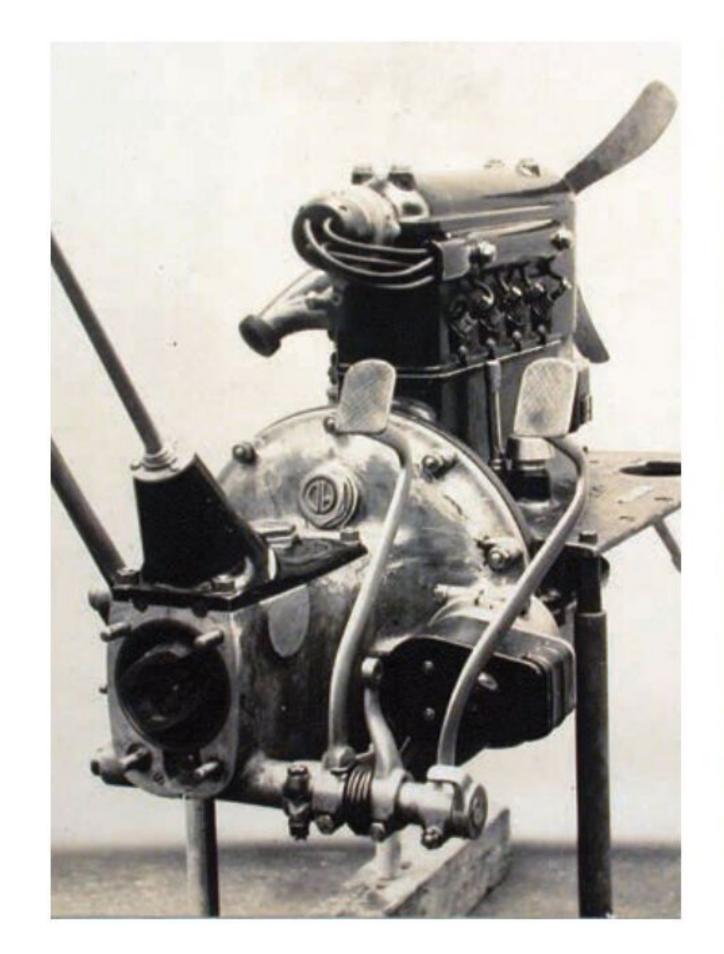
t the beginning of the twentieth century, the Kolowrat-Krakowský family in Austria-Hungary enjoyed a special stature which one anecdote will illustrate. Visitors to their magnificent family seat, Schloss Teinitzl, near Klattau, south of Pilsen in Bohemia, noticed something odd about roads in the area, but couldn't put their fingers on what. Count Kolowrat liked to tease them. "Yes," he'd say, "there are no wagon ruts!" Indeed, for a radius of more than fifty miles around the castle, the roads were dead smooth, resembling the French grandes routes, free of wagon traffic's irritating and upsetting dips and gouges.

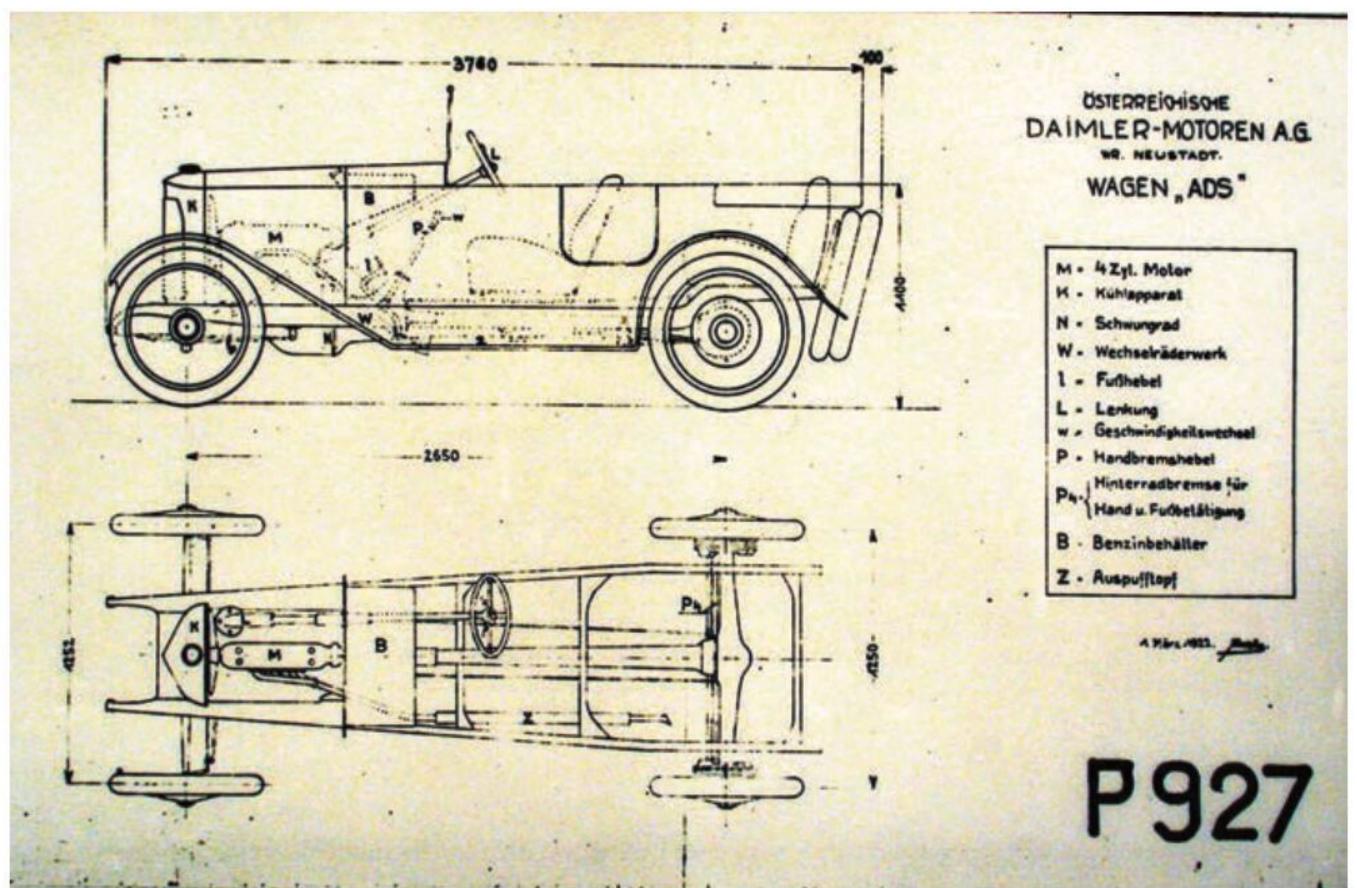
Such was the Kolowrat-Krakowský family's influence in the region, its members were able to persuade local councils to provide roads suiting their primal passion:

motoring. Count Leopold Kolowrat - referred to as "an Austrian cavalier from top to toe" - was mad keen on cars, demonstrated by his status as one of the founders (with Ludwig Lohner) of the Austrian Automobile Club in 1898 and as an investor in Czech automobile, motorcycle and bicycle manufacturing company, Laurin & Klement, which later became Skoda's automotive manufacturing arm. Today, Laurin & Klement is remembered by Skoda's L&K trim level.

Count Leopold had been allowed to resettle in Bohemia after a period of exile, decreed by Emperor Franz Josef after the Count killed a rival in a duel. He passed his exile in Cuba, where he met and married Berti, daughter of world-famed cigar maker, Uppmann. Thus, the three offspring of this union, Alexander, Fritz and Heinrich, were a blend of Bohemian nobility and Cuban joviality. In none were these qualities more

Above Early in 1922, Sascha Kolowrat took to the wheel of the first prototype of the ADS, a small car with a radiator akin to those of the first postwar Austro Daimlers





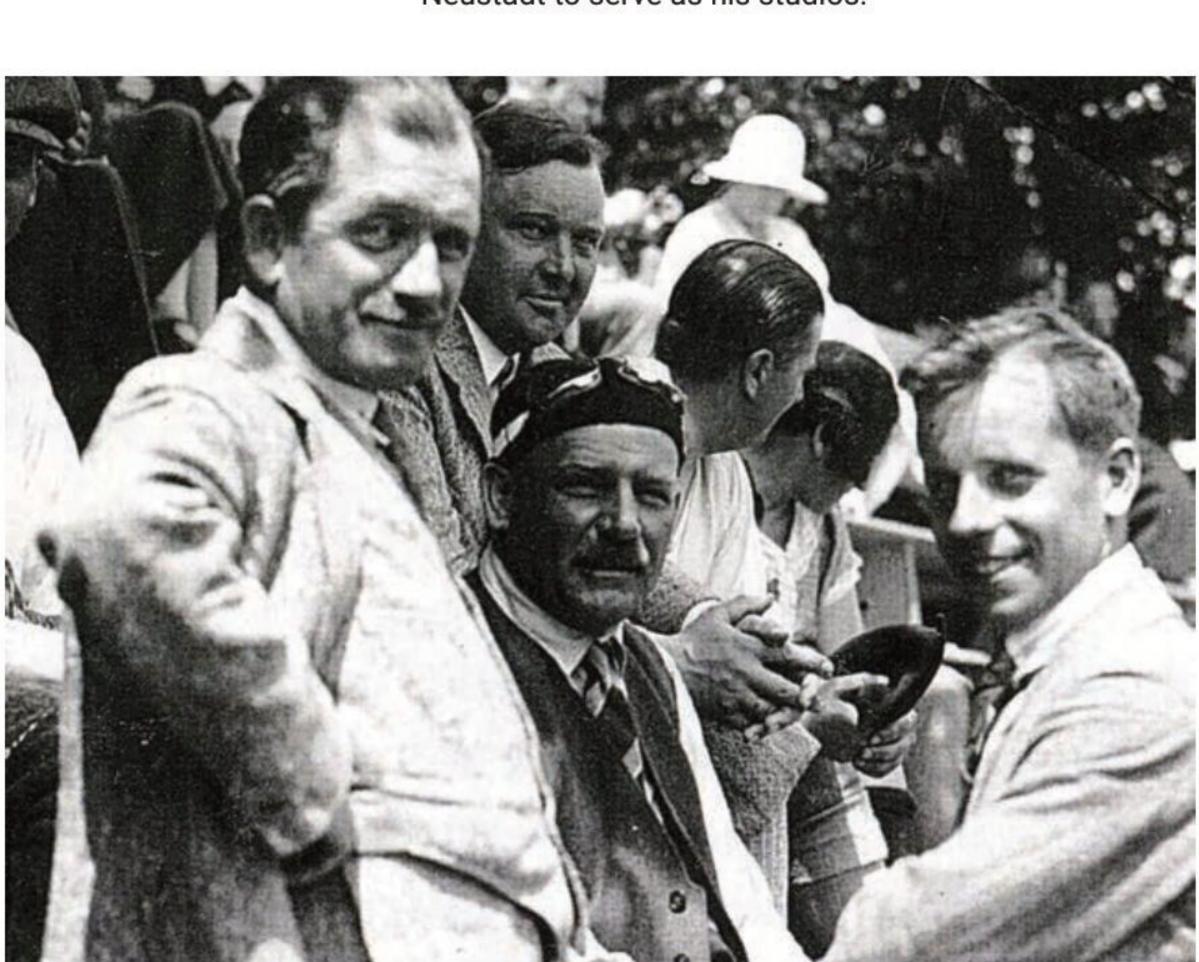
Above Ferdinand Porsche's design of the ADS 1.1-litre engine fully integrated the clutch and compact fourspeed transmission, while the rear of its single overhead cam drove the distributor

Right Relying on rear brakes only, the ADS had Porsche's engineer's preferred cantilever rear springing, while a single door was on the left side only to keep the body rattle-free

Below Seen soon after leaving Austro-Daimler for Daimler in Stuttgart, Ferdinand Porsche (left) is with colleagues, Max Sailer (centre) and Fritz Nallinger (right) happily married than in the eldest, Alexander, who was born in Glendale in the New York borough of Queens on January 29th 1886.

Before reaching his majority, Alexander was a passionate and successful motorcyclist. Having taken up the sport in April of 1904, by December he had covered an astonishing 9,466 miles on two wheels. Naturally, he chose a Laurin & Klement machine, from which he soon graduated to the company's cars. At his father's death in 1910, the twenty-four-year-old Count Alexander inherited an interest in the auto company, whose products he raced and rallied successfully.

Nicknamed 'Sascha', Kolowrat was a colourful and enthusiastic personality whose other investments included a Bohemian glass factory and Sascha Filmstudios AG, an ambitious motion picture company in Vienna's Sievering district. After the war, he re-erected hangars, now redundant, from the airfield at Wiener Neustadt to serve as his studios.

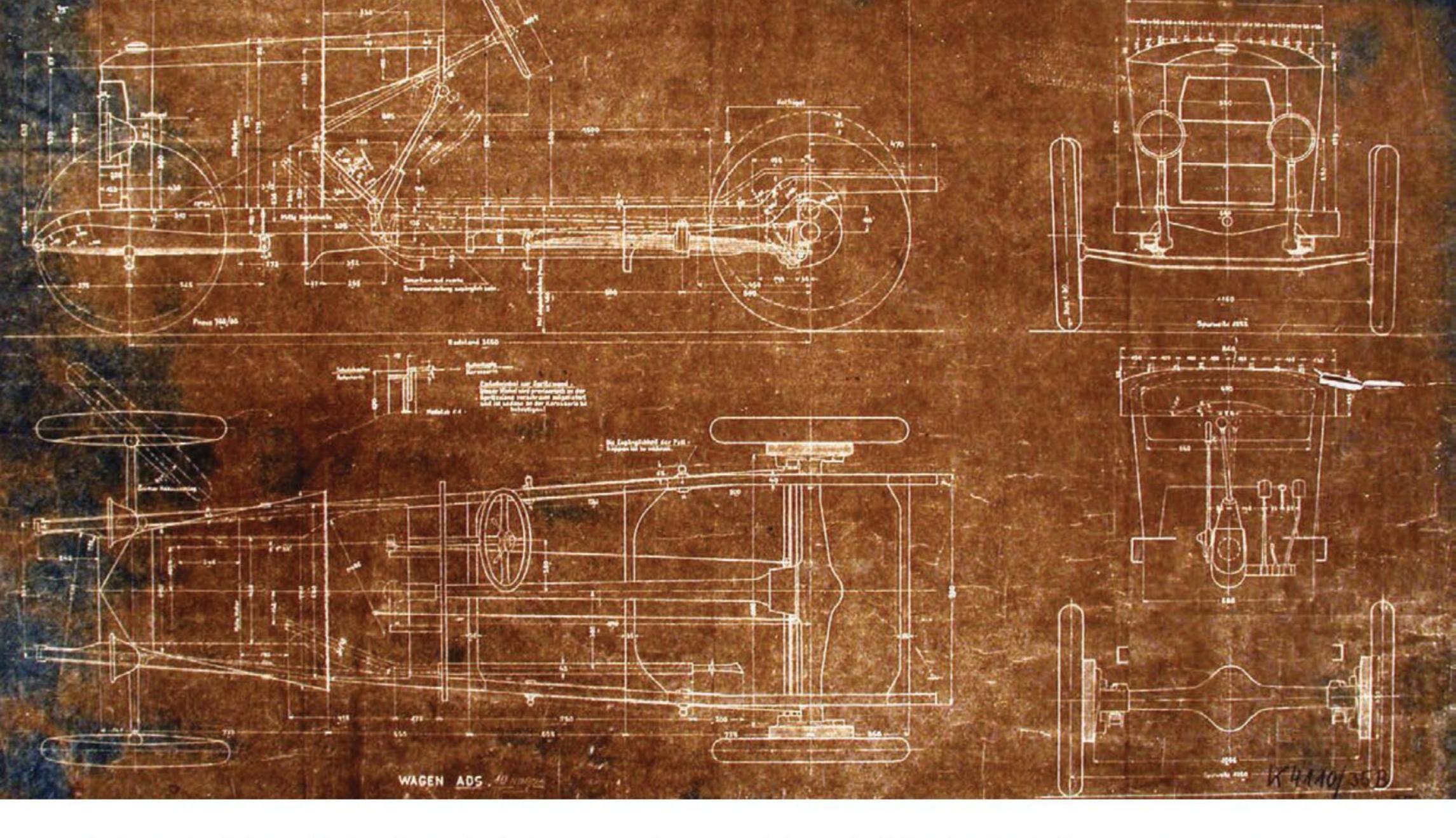


Tidily moustachioed and seldom without a broad smile, tall Alexander Kolowrat "had darkly shining eyes and the yellow-brown hair colouring of a Creole," said Alfred Neubauer. "His voice was so powerful, it rattled the window panes." Transferred from a volunteer motoring corps to a film unit during the war, Kolowrat delivered cinematic reports from the front lines. Only after the armistice did the high-living Count begin to take on the added bulk that he carried — with great style — in his mature years.

#### **AIR AND SOUND**

Kolowrat was still svelte in 1913, when he organized the building of a small two-passenger car to his own specifications. Powered by a seven-horsepower engine, the chain-driven roadster was so light, his party trick was lifting its rear wheels off the ground. In addition to his holdings in Laurin & Klement, the Count was an investor in Austro Daimler. He therefore had a keen interest in the progress of the company, as well as a long and respectful acquaintanceship with its general director, Ferdinand Porsche. From his talks with Porsche, Kolowrat knew the engineer wasn't wedded to big cars alone. Moreover, he discovered Porsche was, in fact, interested in developing a smaller car, one which would have the potential to be produced in such high volume it could be sold at modest cost to a great many people. This seemed a worthy ambition in the conditions that applied in a Europe subject to the throes of recovery from the First World War.

Building such a car carried industrial implications, of course. Heavy investment would be needed, both in the vehicle's design and development and in the tools to make the car in large volume. Here, the Austro Daimler board, led by entrepreneur, Camillo Castiglioni, dug in its heels. Little rump Austria — in post-war Europe a mere shadow of its might as part of the Austro-Hungarian Empire — was far too small to be a viable market for such a car, Porsche was told, and relying on export markets would be too risky. The board's conclusion was that its factory at Wiener Neustadt should carry on with



the larger six-cylinder models Porsche was developing for the carriage trade.

Unburdening himself to Kolowrat on this topic one day in 1921, Porsche was dumbfounded when the Count suggested he might put up the money needed

to fund the design of such a car and the building of its prototypes. Then, he said, the company's board would have something concrete to test and weigh for possible production.

#### FOR PROPER FOUR-PASSENGER BODYWORK, THE WHEELBASE WAS SET AT 104.3 INCHES AND TRACK AT 49.2 INCHES

A proposition that even the most parsimonious board could hardly refuse, it was promptly accepted by Austro Daimler. It seemed to Castiglioni a harmless enough way to satiate the phenomenal appetite of his general director for creative activity. And if something of value resulted, so much the better.

By the summer of 1921, Porsche and his engineers, Otto Köhler, Karl Rabe and Otto Zadnik, were hard at work on designs for the new model. As an example, drawing number 19790 for the car's four-speed transmission was dated August 25th 1921. In recognition of its sponsor, the new type was dubbed ADS, an acronym of Austro Daimler Sascha.

Although straightforward in design, the ADS's solidaxle chassis showed intense attention to detail. Tapering toward the front in plain view to give room for excellent steering lock, its frame of C-section steel channels kicked up over the rear axle to provide jounce clearance. Porsche used his trademark cantilevered leaf springs at the rear and conventional semi-elliptics in front. Of the disc-type road wheels, only the rears were braked.

To give space in the ADS for proper four-passenger bodywork, the wheelbase was set at 104.3 inches and track at 49.2 inches. The rear axle's aluminium centre

section was married to steel axle housings. Its slender torque tube was pivoted to the rear of a compact four-speed transmission with its change lever at the centre of the cockpit. Cast into the right rear of the transmission housing was a boss for a pivot shaft carrying the pedals

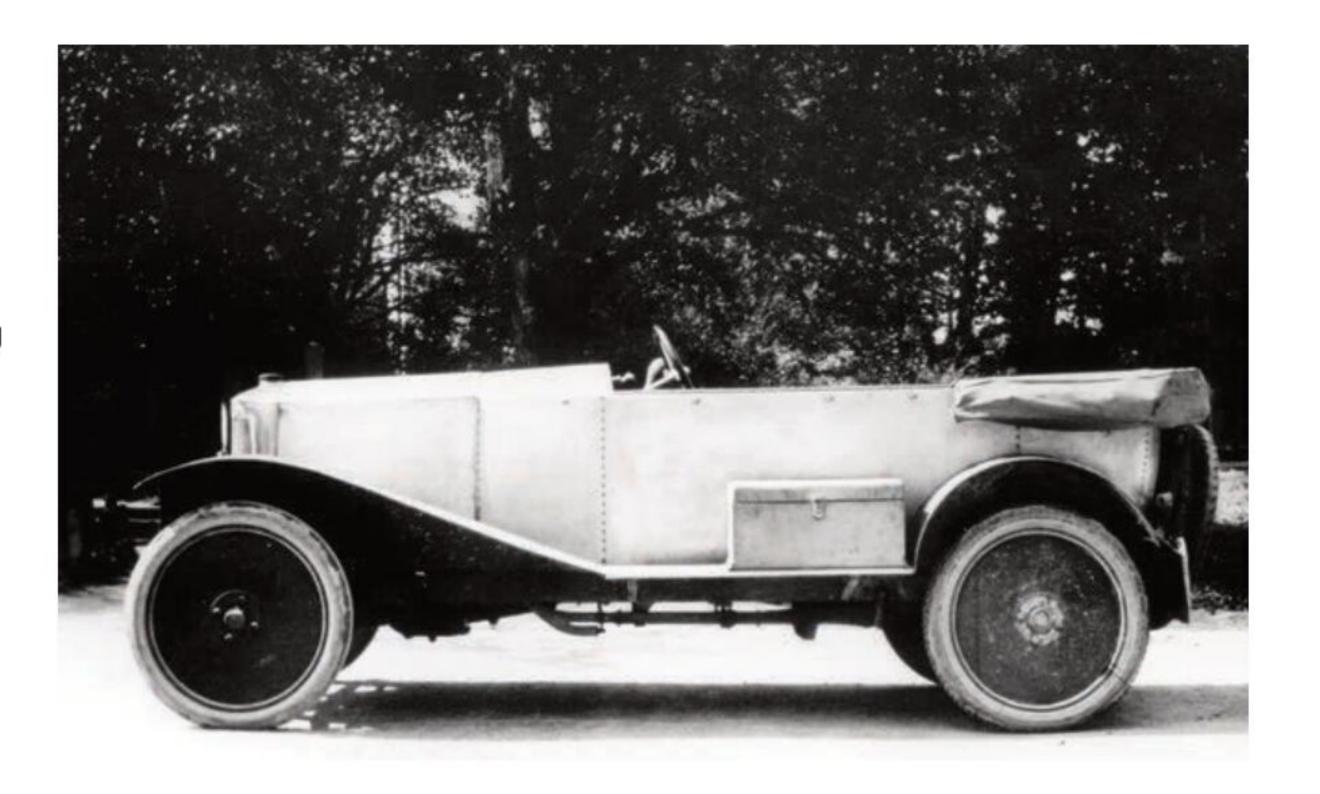
for right-hand
drive, with a central
throttle. The clutch
was a single-disc
design with the
starter motor on
the right side of the
gearbox.

It would be fair

to describe the ADS's four-cylinder engine as a little jewel. For cost reasons, both block and head were cast iron. From the block, an apron extended to right and left to unite the engine with the frame, greatly increasing the structure's strength. Cut off at the crankshaft centreline, the bottom of the block was encased by a cast aluminium sump. On its right side were a combined

Above The ADS of 1921,
Ferdinand Porsche's first
design of a small gasolineengined car, had an elegantly
refined chassis on a 104.3inch wheelbase as shown
on this drawing to guide
coachbuilders

Below The first ADS of 1921-22 carried a toolbox on its left running board and its battery on the right (note: no windscreen was fitted at this early stage)



94 December 2022

#### PORSCHE READER SURVEY

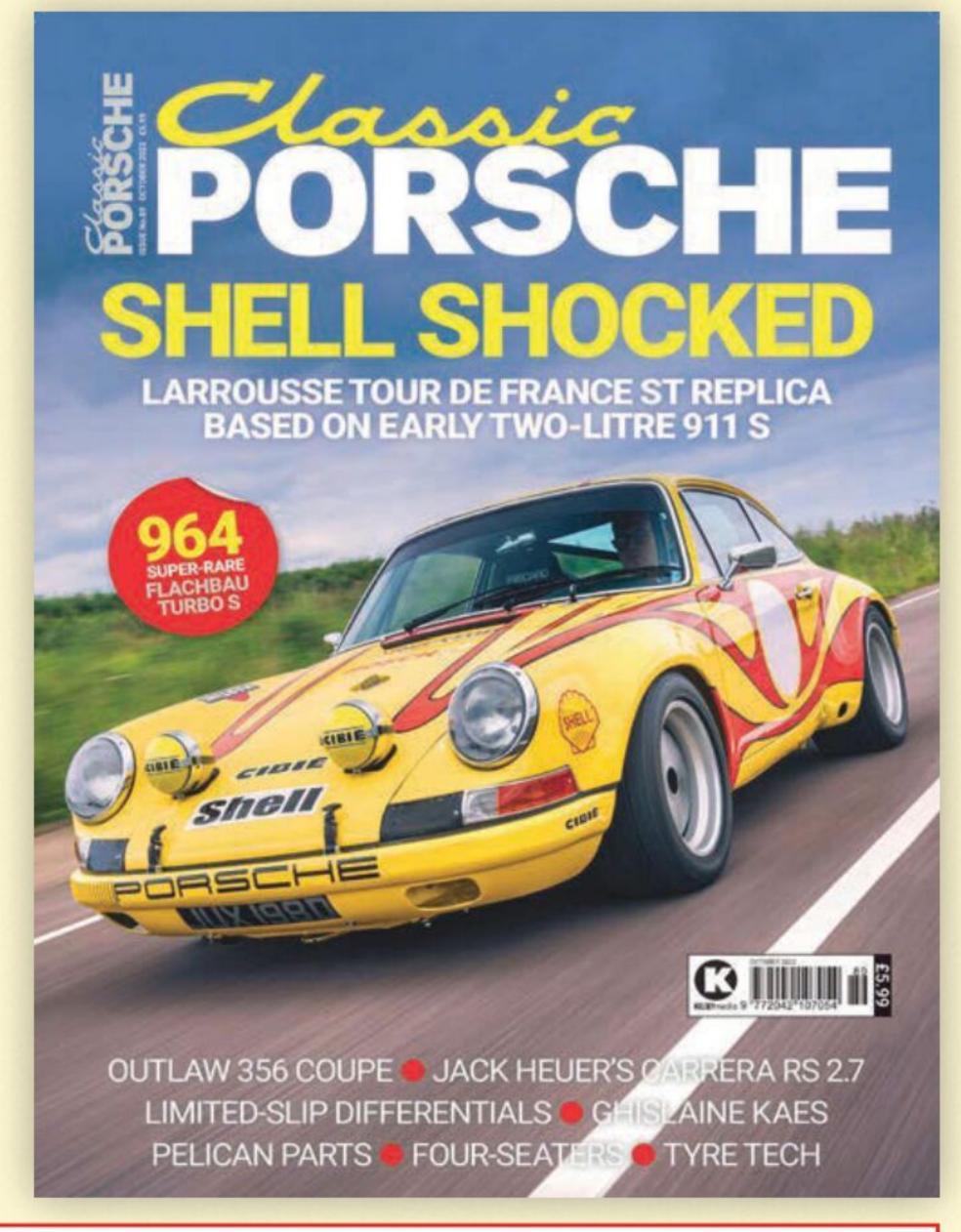
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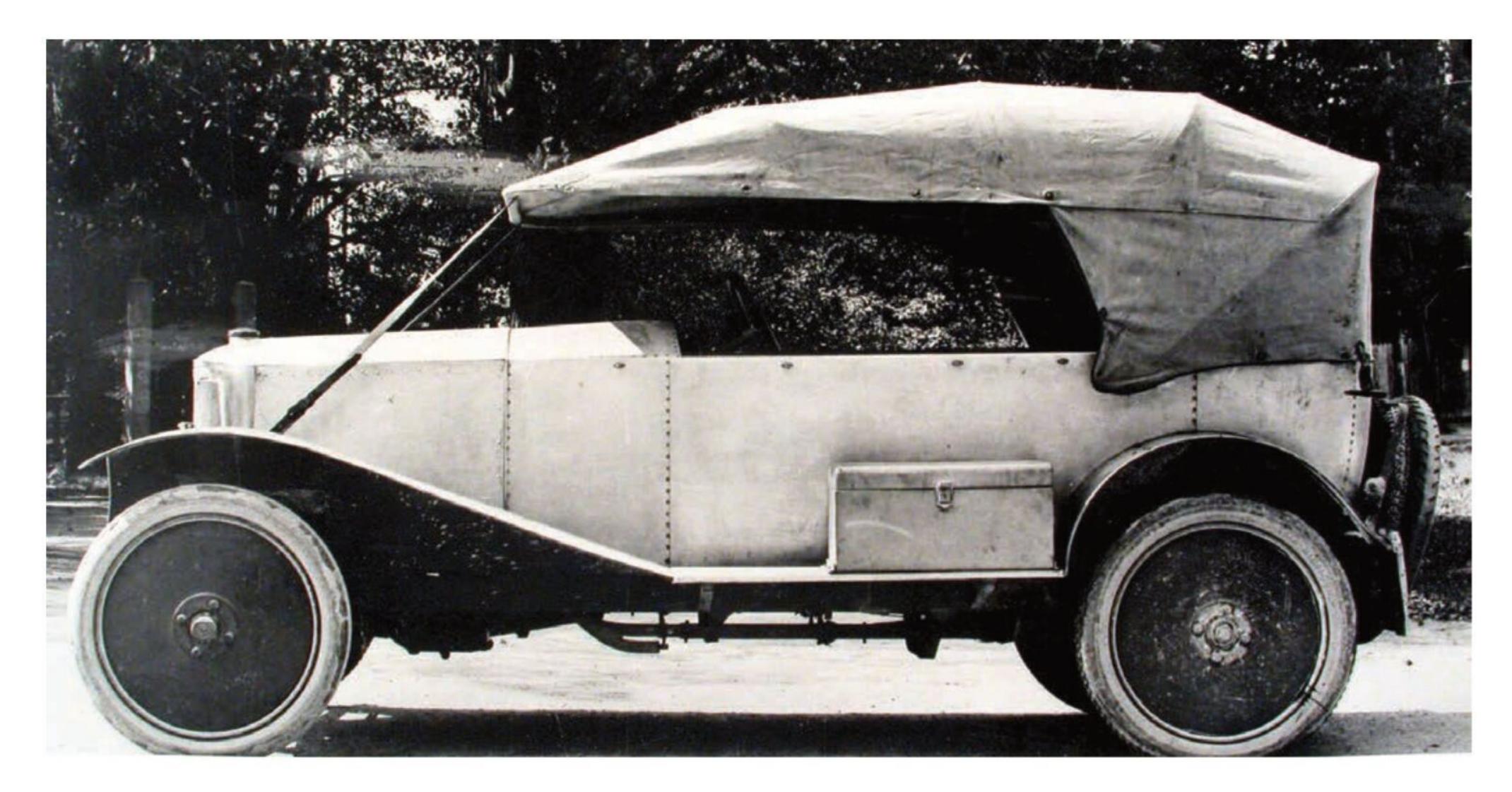
Dan Furr Editor



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oil filler and ventilator, as well as a dipstick. Two wide bearings forty-two millimetres in diameter carried the crankshaft, which also had forty-two-millimetre rod journals. The use of only two main bearings to carry the crankshaft of a small four-cylinder engine wasn't uncommon at that time, with examples from Fiat, Citroën, Riley and Austin chief among others. The design kept friction at a minimum and favoured compact construction.

All the crankshaft journals were internally bored for lightness. Commendably short for the period, the 140mm connecting rods were tubular and pinned to flat-topped thin-wall steel pistons. Cylinder bore centres were spaced at seventy-six millimetres. For compactness, the cylinders were siamesed, with no water passing between them.

#### **OFF WITH ITS HEAD**

The detachable cylinder head made use of eighteenmillimetre spark plugs along its right side and both inlet and exhaust manifolding on its left. This allowed exhaust heat to warm the fresh charge, improving vaporization, from a single updraft Pallas carburettor. Vertical inlet and exhaust valves thirty millimetres in diameter were placed inline down the head and opened by a single overhead camshaft.

With hollow stems a generous sixteen millimetres in diameter, each valve was topped by a circular disc against which the cam lobe rotated. At the bottom of the disc was a central shaft screwing into the top of the stem. Just under it was another disc, which was turned to clamp the valve's split top against the disc's threads, thereby securing the valve clearance setting. The lower disc was also the abutment of a single coil spring.

This method of adjusting valve clearance was patented by Porsche and Austro Daimler. Also patented were details of the ADS camshaft drive. This was by a vertical king shaft and bevel gears at the front of the

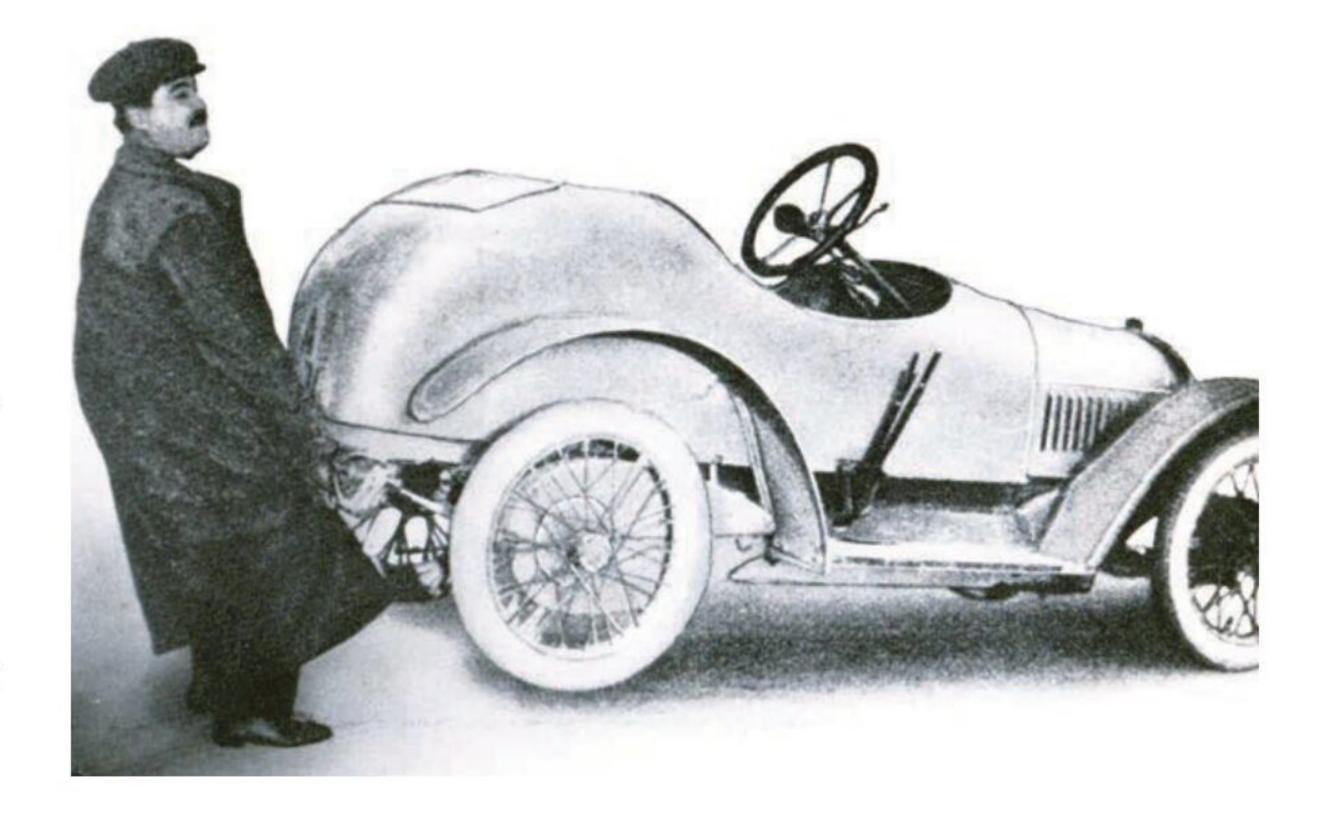
engine, with the innovation of making the rotor shaft of the generator perform double duty as the king shaft. Other features covered by the patent were an ignition distributor driven from the rear of the camshaft and a flexible torsion bar drive for the cooling fan at the camshaft's nose. No water pump was needed for the engine's thermosyphon cooling.

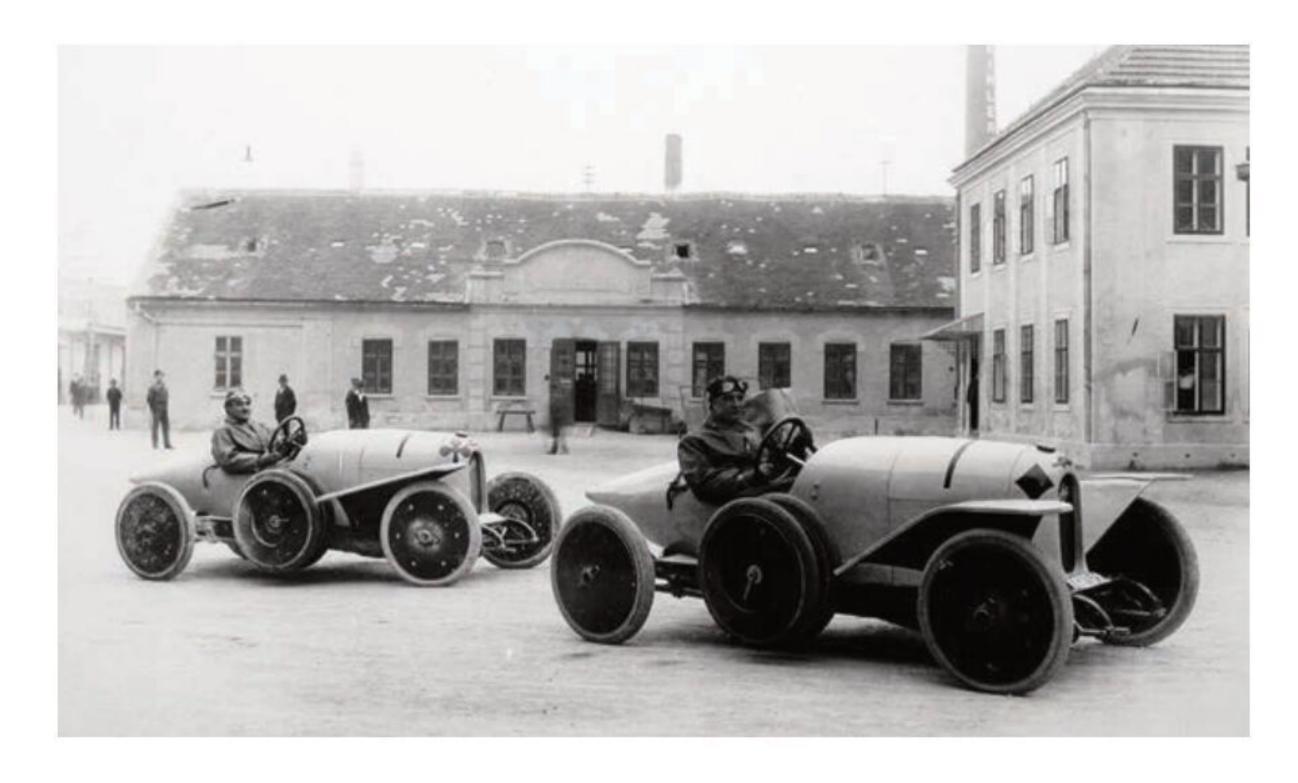
With dimensions of 68.3x75mm for 1,090cc, the ADS four was a short-stroke unit by the standards of the day, laid out for efficiency, rather than slavish adherence to a taxation formula. Even so, its taxable horsepower was a modest 4½. Actual output at an early stage of development was 15bhp at 3,000rpm.

The free-revving engine gave surprisingly good performance in a car weighing 780kg, distributed 46/54 front/rear. Its bodywork, panelled in aluminium, was neatly integrated with a curved radiator in the same style as Porsche's other post-war designs. A toolbox was on the left-hand running board and the battery on the right. Although parts for ten cars were said to have been laid

Above Developed as Austro Daimler's P927, the ADS was a stylish small car of high performance with substantial sales potential, so much so BMW considered exploiting it

Below In 1913, the car-mad Kolowrat backed the building of a prototype of a sevenhorsepower vehicle with chain drive — his party trick was lifting the car by the tail





Above ADS R race cars were built with twin-cam 1.1-litre engines and lighter frames

**Below** Recently restored ADS R, as held and exhibited at the Porsche Museum in Stuttgart

down, only two of these ADS prototypes are thought to have been completed.

Building the cars would be only half the battle, Kolowrat and Porsche knew. The real job would be convincing Castiglioni and his conservative colleagues they should invest

in the tooling needed to produce Saschas in volume. Racing-mad as they were, the two protagonists decided to build a competition version

marque's fine small cars.

of the new model. This, they were sure, would launch the Sascha brand with the dramatic flair needed to encourage buyers to storm Wiener Neustadt and demand they be allowed to buy the new

team manager. Only one of the quartet — ironically, Sascha Kolowrat's own car - failed to finish the 268-mile race, which was staged on some of the world's toughest roads. The other three finished nineteenth, twenty-second and twenty-fourth among many much larger cars. Against the winner's average of 39.20mph in a 4.5-litre Grand Prix Mercedes, the fastest Sascha achieved a highly

Thus, in the summer of 1921, the conspirators

initiated work on a racing version in parallel with their

production car project. The racer would be an ADS, but a

special version dubbed the ADS R. It shared many of its

features with the ADS, but was built with a twin-cam 1.1-

litre engine and a lightened frame. The fuel tanks were

positioned below the seats. Four cars were entered into

the 1922 Targa Florio road race, each competing with

Porsche as technical director and Kolowrat as

With three of its four cars finishing, the Austro Daimler team could be proud of what it had achieved in Sicily. The company, said Vienna's AAZ newspaper,

respectable 34.28mph.

"could be entirely satisfied with the performance of their small car in its first big international race of the year." Porsche arranged large advertisements trumpeting, "Austro Daimler is the moral

victor of the 1922 Targa Florio!" His goal wasn't yet achieved, though - despite joining in the celebrations, Austro Daimler's directors weren't moved to approve production of the ADS.

When 1923 rolled around, the car still hadn't entered

#### ONLY ONE OF THE QUARTET FAILED TO FINISH THE 268-MILE RACE, STAGED ON SOME OF THE WORLD'S TOUGHEST ROADS





production, though toward the close of 1922, there had been a glimmer of hope. A German company, BMW, had entered the aero engine field with considerable success during the war. Now, in peacetime, it needed to turn its production to other fields. Automobiles were close to the heart of Franz-Josef Popp, BMW's chief. The wily Castiglioni had also been an investor in BMW — it was natural Popp visited him during a business trip to Vienna. *Chez* Castiglioni, Popp met Kolowrat, of whose exciting small cars the BMW man had naturally heard.

When Popp learned from a disappointed Kolowrat that Austro Daimler still had no interest in producing the ADS, he thought of taking the initiative himself. Popp knew Porsche's skills well —BMW had built Austro Daimler's V12 under license during the war. Popp could put the small car into production at his facilities in Germany, which seemed a big enough market to support projected sales. The three men agreed this would be an excellent idea. Popp prepared a new contract for his chief engineer, Max Friz, who had worked with Porsche on aero engines and would oversee the Sascha's volume manufacture at BMW's Munich plant.

On reflection, however, Popp decided against producing the ADS. He had doubts that even in Germany, whose economy was still racked by hyperinflation, demand for small cars would be adequate to support the needed investment. Attractive though it was, this option for the ADS fell by the wayside. Ironically, when BMW finally entered the automobile field, it would be with small cars — in 1928, BMW acquired an Eisenach company producing Britain's Austin Seven under license and marketing it as the *Dixi*. From this acorn grew the oak of BMW cars.

Meanwhile, another ADS prototype was nearing

completion. By now, factory hands were used to seeing the teenaged Ferry Porsche in their departments, asking questions and learning about their work. Ferry became taken for granted, so much so nobody seemed to notice — or mind — that he was squirrelling ADS parts away. "By scrounging from various sections," Ferry related, "I was soon able to store away enough discarded parts to build myself a complete Sascha car in every detail. This was a very exciting project, naturally. I was careful to keep the whole thing secret as each successive part went into a special hiding place."

In the spring of 1923, however, young Ferry's dream was dashed. The unthinkable had happened: he and his family were leaving Wiener Neustadt to settle in Stuttgart, where Ferdinand Porsche was named the new technical director of Daimler, maker of Mercedes cars. Ferry would have to leave his precious Sascha parts behind. Thankfully, as we now know, his father would not abandon the attractive idea of an affordable small car of high quality and wide appeal. **CP** 

Above In the near future, the Porsche Heritage and Museum department will present the ADS R as a rolling exhibit at live events

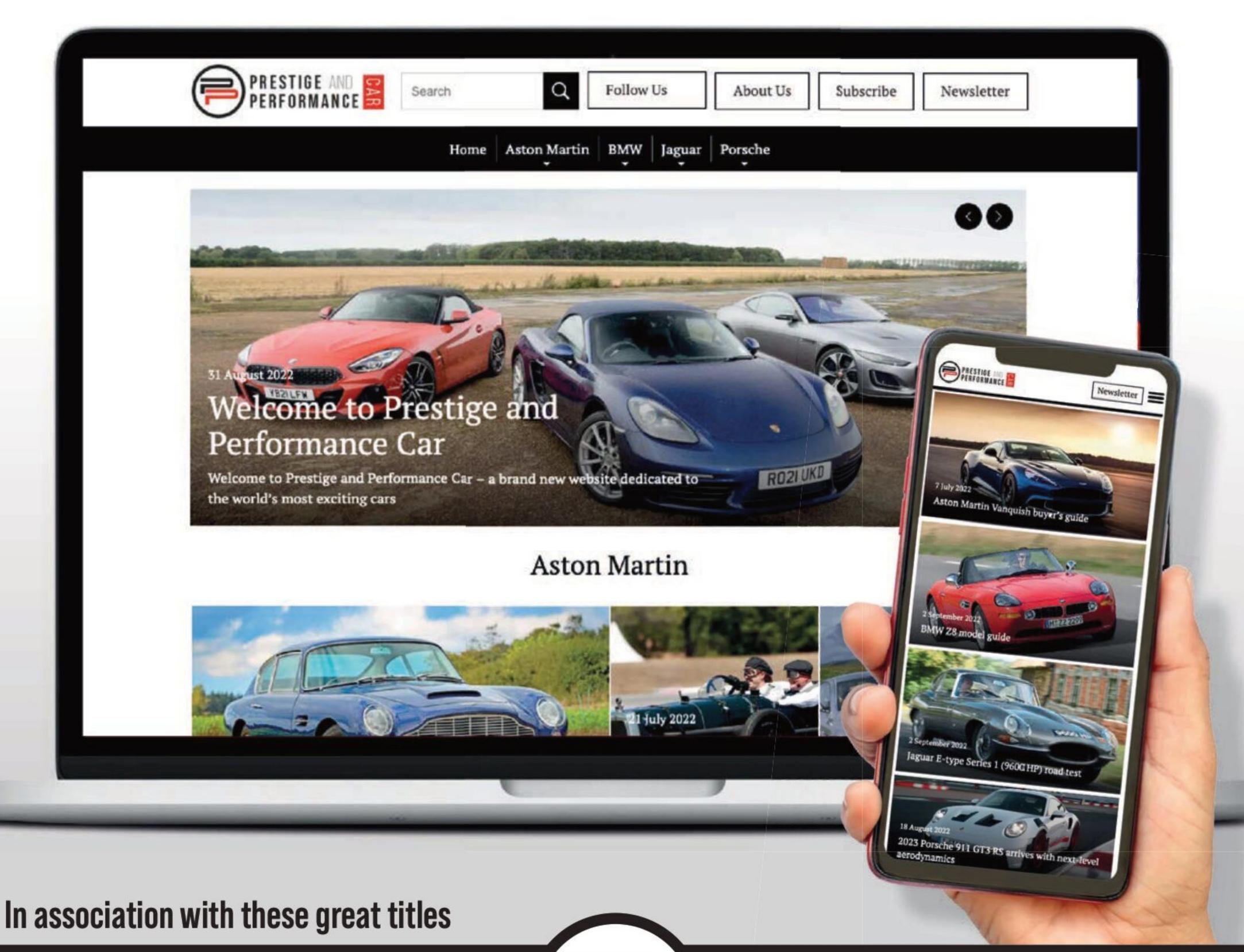
**Below** The restoration taking place in the Porsche Museum



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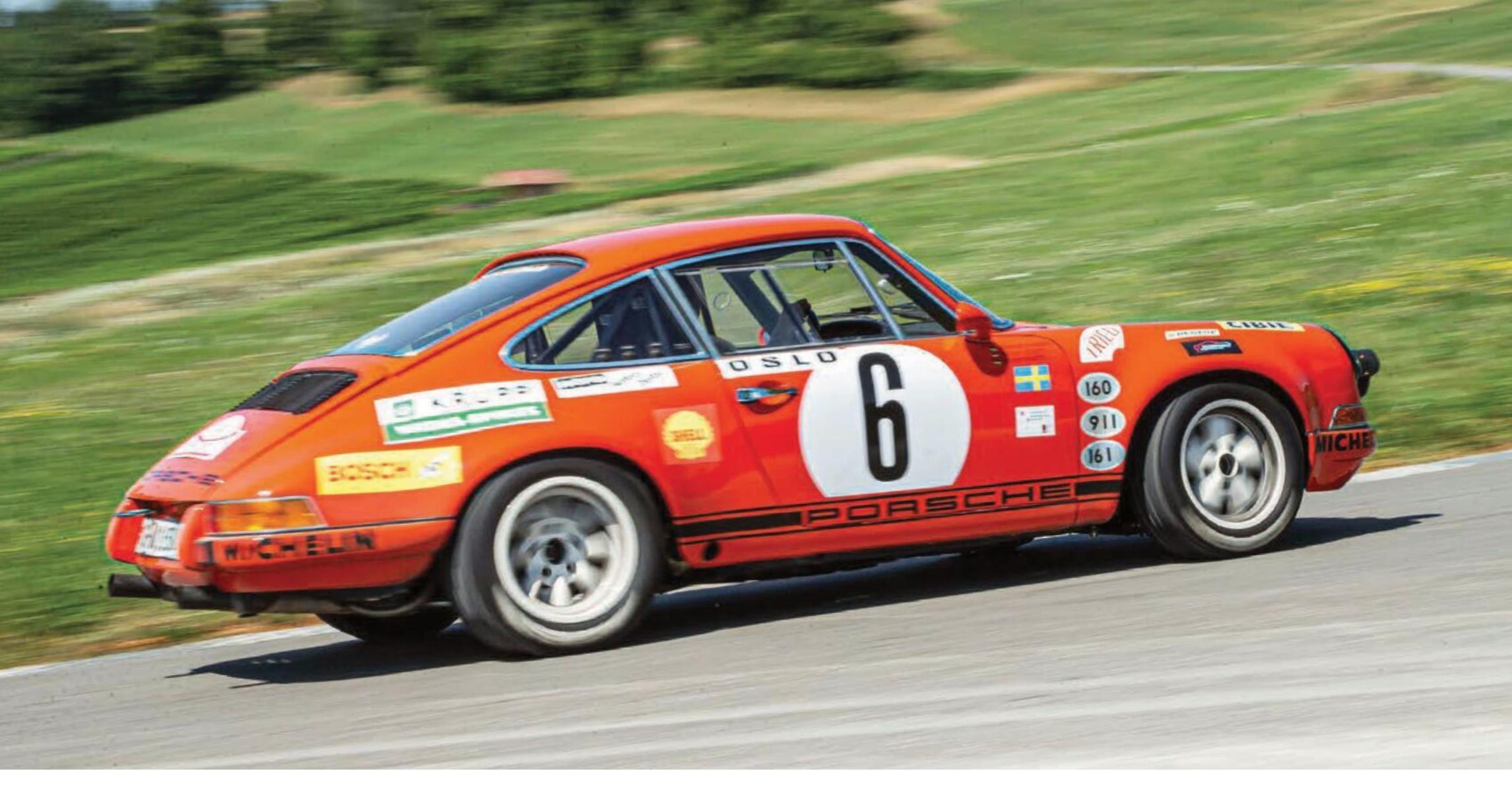
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utwardly, the factory 911 entries prepared for the 1970 Monte Carlo Rally didn't look radically different to the previous year's winning Porsche, but new regulations allowed minor modification, hence the two inches added to the 911's track and the flared wheel arches needed to accommodate wider wheels, features which would soon become symbolic of high-performance 911s. Under the slightly extended bodywork, however, is where many of the permitted changes were to be found. For example, Porsche's engineers slightly increased the 2.2-litre engine's bore from 2,195cc to 2,247cc, which although technically should still have been classified as a 2.2, was labelled 2.3.

The engine was equipped with a Bosch mechanical fuel injection system, twin-plug ignition and high-lift 906 camshafts. While the period's circuit racing 911s built to Group 4 specification were capable of up to 260bhp, rallying was much tougher on a car's core components, which is why the Monte Carlo machines were detuned to 190bhp. The engine was mated to an upgraded Type 915 gearbox. The assembled car tipped scales at just 860kg.

Even into the early 1990s, the Monte had a strange tradition of hosting a long-distance regularity event with multiple start points all over Europe, entrants converging on the Principality of Monaco before the rally proper began. Björn Waldegård started his drive in Oslo, the capital of Norway, while others picked up the pace from Dover, Reims, Warsaw, Athens, Frankfurt and Lisbon. All met in the south of France before speed tests in mid-January.

1970 was a warm winter. Heavy rain had washed away most of the snow, leaving mountain roads mostly dry. With stages starting in the valleys and working their way up and over the passes, conditions changed from corner to corner, meaning tyre choice was critical. On the north side of the mountains, where the sun hadn't shone all winter, having the engine hunkered

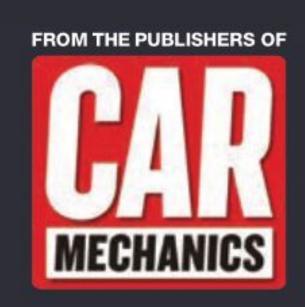
over the driving wheels proved a big advantage — after the entire contingent of works Lancias went out with engine problems, the win came down to a fight between the fastest factory Porsches and a plethora of similarly rear-engined Renault Alpine A220s.

After 250 miles of special stages and five hours and thirty-nine minutes behind the wheel, Waldegård aided by co-driver, Lars Helmér – won with almost a two-minute cushion over teammate, Gerard Larrousse, to complete Porsche's famous hat-trick (Vic Elford and David Stone won the 1968 event in the 911 T, Waldegård and Helmér took top honours with a 911 S 1969, the Swedes returning again to repeat the feat in 1970). These days, a title-winning car would most likely be wheeled into a factory storeroom, looked after with reverence and displayed on special occasions, but after 030 001's Monte Carlo victory, its competitive life was only just beginning — the following year, this potent Porsche found itself on the island of Sicily, southern Italy, where Jo Siffert used the car as a training vehicle in advance of the 1971 Targa Florio.

Above and below The
Porsche Museum offered
the car's previous owner a
used 944 in exchange for this
historically significant 911,
a snub which saw it pass
into the hands of Raceline
founder, Karl-Heinz Feustel



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Above and below One of four specially prepared works entries for the 1970 Monte Carlo Rally, later an entry in various hill climb, autocross and rallycross events

In 1973, 030 001 was reduced to a rolling shell and was put up for sale by the factory. The buyer installed their own gearbox and engine before spending more than a decade beating the Porsche around various European autograss and rallycross events. This type of frantic, close-quarter racing is notoriously tough on cars, but somehow, 030 001 managed to survive its punishment, leading a friend of Karl-Heinz Feustel, founder of Raceline, to buy it in the mid-1980s. Knowing the car's provenance, he attempted to sell it to the Porsche Museum in Stuttgart, but he was offered in return was a second-hand 944. None too impressed, he approached Feustel, who suggested a much more appetising Carrera RS 2.7 Lightweight in exchange. Deal done, 030 001 came into Feustel's capable hands. It wasn't destined for an easy retirement, though. Indeed, in 1992, he entered the car into first classic Tour Auto, a tough, week-long event in France combining rally stages with circuit racing.

He also entered the Porsche into the Trofeo Baleares, a famous classic rally around the tight lanes

of Majorca. For the 2003 edition, he even let Walter Röhrl take to the wheel. The two-time World Rally Championship victor, well-known for his work as a Porsche test driver, finished second overall, pipped to the post by Jürgen Barth, himself driving a 911. The following year, back at the wheel of 030 001, Röhrl took top honours. Around this time, the owner of the car's original engine and gearbox contacted Feustel to ask if he wanted to reunite the parts with their rightful host. How could he refuse?!

#### **KEEP IT IN THE FAMILY**

The car came into the ownership of Fuestel's son when he was just eighteen years old, but it wasn't gifted to him as a birthday present. In a move inspiring a great project to learn the skills needed to run the Raceline workshop, his father tasked him with stripping the car to a bare shell and subjecting it to a year-long restoration. With every intention of driving this special car how it was intended, Feustel Jr removed many original parts for safe keeping — the doors, wings, bonnet, bumpers and wiring loom are in storage to preserve them, just in case he ever has a regrettable accident. Additionally, modern FIA safety regulations mandate much more robust safety components than they did fifty years ago, which is why the rear hoop has joined the body panels and is replaced with a full Raceline cage. The extra equipment has added a little extra weight to the car, but it still stands at just 892kg.

Many original features remain, though. The rally plates, for example, are the very parts from fifty years ago, as is the steering wheel. The S/T mix of Fuchs and Minilites are shod with fat 225/5/R15 Michelins at the front and 270/45/R15 at the rear. The wheel widths, in case you're interested, are 7J and 9J respectively.

After completion of the restoration, the car was taken to the 2012 Arosa Classic Hillclimb and the famous Eifel Rally in Germany, where after forty years since winning the Monte Carlo in this very 911, Waldegård autographed the roof. The great man's signature is



protected under a transparent plastic sticker. The car then enjoyed six years of being entered into various slalom races, racking up a trophy cabinet full of silverware in the process.

If there's one thing better than taking photos of such a car, it's taking it out for a test drive. And if there's one thing better than driving such a car on a normal road, it's taking it out on a race track. Just outside the village we've gathered at,

a random patch
of black lines
mark the start
of a hill climb
course. Seeing as
it's literally just
a few hundred
metres from their

## THE DEAFENING ENGINE AND TRANSMISSION NOISE, THE CRACK OF WIND THROUGH THE QUARTER PANEL WINDOWS

workshop, the Feustels know it well. Well enough to blast around blind corners with foot flat to the floor. Even on the corners we can see around, it beggars belief how this thing stays in contact with the road.

The car's light weight makes a significant contribution to the incredible handling. Lateral momentum with stiff suspension and wide tyres, this 911 feels like it's on rails, but while we're quietly screaming about trees on the outside of bends, as well as the imposing drops down mountain sides, we have to keep in mind this is a leisurely Sunday drive for the Feustel family.

They know every single nut and bolt on this car, as well as the terrain. Plus, father and son have competed with this 911 for many decades. Even in this short demonstration, however, for the countless corners of

the Monte Carlo, it's little wonder Waldegård did so well – Porsche handed him an absolute weapon for the mountains.

After living a rather sedentary life through the height of the pandemic, time in this significant Porsche motorsport machine is shockingly visceral. The deafening engine and transmission noise, the crack of wind through the quarter panel windows, the hugely

mechanical shifting and, when we pull up to check photo shoot opportunities, the heady waft of hot oil and brakes. Sublime.

In the present, 030 001 is often seen taking part in Swiss

historic hill climb competitions, but only in pursuit of class wins — no matter the car's provenance, it's impossible for it to match the pace of the Carrera RSR 3.0s it finds itself up against. Feustel the Younger's future plans with the car have definitely piqued our interest, though.

All three of the other 1970 Monte Carlo 911s are looked after in the Raceline workshop for their proud owners. The fourth car (but not 004 on its VIN) remains an original factory build and is currently in the process of being restored. Porsche Classic has been asked to repair the shell. The Feustels will do the rest.

When the work is finished, all four cars will be brought together for the first time since the Monte Carlo rally in 1970. Rest assured *Classic Porsche* will be there to bring you the story. We can't wait. **CP** 

Above All four of the factory entries for the 1970 Monte Carlo Rally will soon reunited for the first time since their original outing together

106 December 2022

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#### **PORSCHE 911**



1996, £125,000. Porsche 911 Carrera (993) 1996 road/race car, N reg., 3.6 It twin turbo, 6 speed gearbox, turbos recently rebuilt and fuel lines replaced. Engine 500 bhp (approx.) Brembo race brakes (road units also supplied). Gt 2 wide body kit fitted with 8x10x18" BBS alloys. Welded custom cage, fire eater system, air jack system (as per Brit car). Variety of race springs available, variety of split rims and spare set BBS alloys available at separate extra cost. Competed in AEMC and ASEMC sprint championships and DOMC North Sports Saloon Championship Please call 07860379440, East of England.

112913

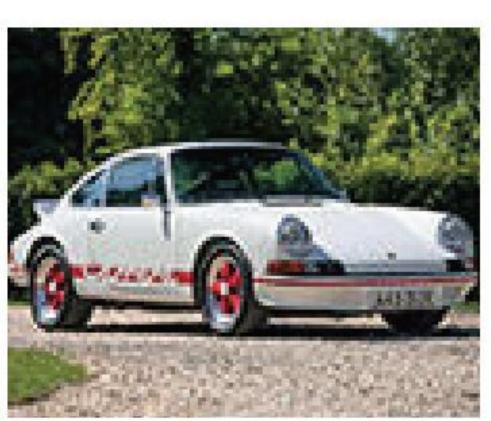
#### **PORSCHE 911**



2012, £50,995. 2012 PORSCHE 911 CARRERA 991. Finished in unmarked Carrera White with Black Hide PDK 7 speed transmission with steering wheel paddles. Specifications include Sat Nat, Cruise Control and Launch Control, Climate Control, Heated Seats and Rear Park Assist. Please call 01485 541526, South East. (T)

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#### PORSCHE 911



1984, £89,995. From 1984 this 911 RS tribute utilised a C16, right-hand drive 3.2 Carrera Coupé as its starting point. Specifically, this was a healthy well-serviced example with a good history file. This tribute car presented here pays homage to the legendary 1973 2.7 RS, echoing that famous silhouette very well, and was professionally built. This striking car, now reborn, looks just right in the classic combination of Grand Prix .Please call 01798 874477, South East. (T)

116683

#### **PORSCHE 911**



2003, £69,950. The vehicle has a service record full of stamps from both Porsche Main Agents and independents. The vehicle will be reserviced and inspected at Jasmine Porsche prior to delivery to the lucky new keeper. Please call 01229 486315, North West.

112558

#### **PORSCHE 911**



1972, £119,995. The Viper Green paint is first class, the chrome work exceptional and the interior is outstanding and incredibly sharp. Please call 01944 758000, Yorkshire and the Humber. (T)

#### **PORSCHE 911**



£107,950. This car has just been released from the private collection of one of our very best clients and friend of the business. The car must be viewed in order to fully appreciate. The history file is just enormous and contains receipts for recent works carried out by our client totalling £40,000. Please call 01229 486315, North West.

112561

#### **PORSCHE 912**



1967, 132853 miles, £45,000. Porsche 912. I am selling my 912 after 12 years of ownership. The car is a 1967, left hand drive short wheelbase car with matching numbers. Please call 07773772474, North West.

113516

#### PORSCHE 924



£4,750. Very Tidy Porsche 924 with 1 years MOT and ready to drive away. Its only done 53000 miles with mots to back up the mileage. The car has had a good bit of money spent on it since 2019 and it runs and drives very well. Please call 01875 820527, Scotland. (T)

#### PORSCHE 928



1990, 165000 miles, £29,928. Porsche 928 S4 auto 1990. Restored by Porsche Portsmouth and Porsche approved Poole body shop for Porsche uk 40 years at the front dealer competition in 2016. Very rare in special order Tahoe blue, even more rare is having in excess of £55000 spent in restoring it bodily and mechanically. , Scotland.

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#### **PORSCHE 928**



110000 miles, £29,999. coupe (pre-S- model). auto, a very desirable car light blue metallic with royal blue leather, full-service history, Porsche UK authentication certificate. Please call 01452 731289, South West.

110220

#### PORSCHE 944



1990, 133000 miles, £12,950. 944S2 Cabriolet, Guards red, black interior. Lovely condition, total 3 owners, doting last one for 29 years. Every document for that period. Serviced at Northway Porsche, always garaged. MOT to February 2023. Please call 07711703542, South East.

113090



#### **PORSCHE 944**



1990, 186000 miles, £20,995. As featured in 911 and Porsche World, late model 952 (250hp) with FSH, cream leather, M030, genuine original car, loved by me (4th owner) for 19 years. Drives beautifully, fabulous condition which belies its mileage. Please call 07710094124, East Midlands.

#### PORSCHE 944

113444



1989, £13,950. 944 S2 Cabriolet. Lovely Looking Appreciating Classic in Black over Cream Leather Interior. Please call 07835 877345, South West.

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#### **PORSCHE 944**



**1987,** 2 previous owners current owner 18 years, 94 000 miles, summer use only, always garaged, well maintained and in excellent condition. Please call 07747020758, South West.

116025

#### PORSCHE BOXSTER



2006, 67000 miles, £11,250. My car is in Arctic Silver with Sand Beige leather interior, registered in November 2006. It's a Tiptronic with Sport Chrono which is a "must have" option with the auto as it makes it more lively and responsive than without. It's in great condition. There's a few stone chips on the front but no rust and she benefits from many optional extras some of which are rarely optioned on a Boxster. Please call 07909923202, South East

#### PORSCHE BOXSTER



2003, £9,750. 2003 Porsche Boxster 3.2 S. Metallic Basalt Black with Black leather and Black power soft top. Facelift model with the glass heated rear window and clear indicator lenses. 6-speed manual, power steering, ABS. Please call 01277365415, East of England. (T)

113353

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£239. Porsche Durametric Diagnostic Software - AS NEW Only one use! £239 ono. A couple of months old, enables ECU details to be read, service reset and multitude of vehicle error codes etc to be cleared, the list goes on...covers all Porsche models 911 (997). Please call 07470683479, East of England.

110199

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