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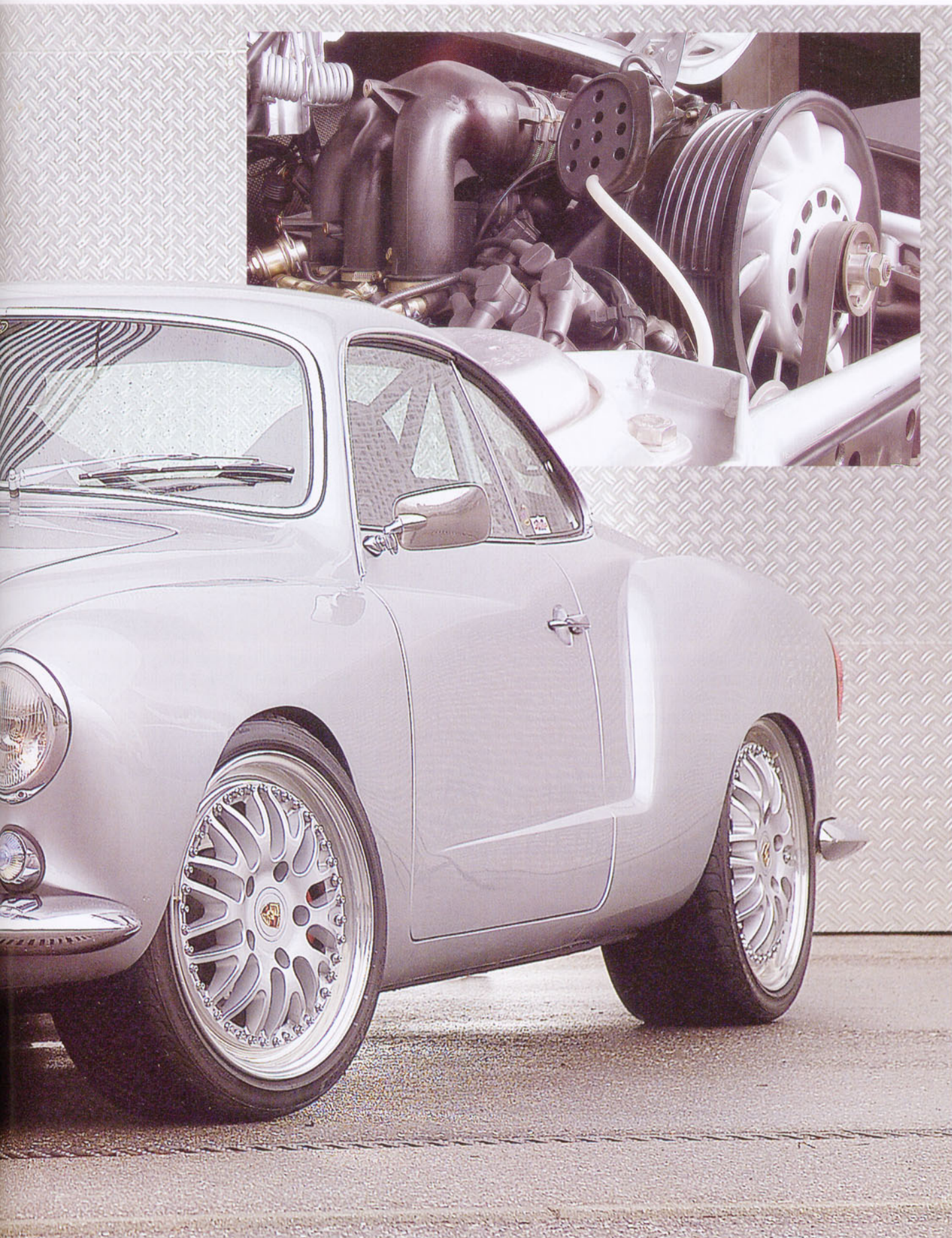




Karmann Carrera

Remember the ultra-rare Porsche 916s or the Norstadt Carrera Beetles? Now imagine if there had been similarly performance-orientated designers on the board at Wilhelm Karmann's old body shop. What do you think they might have built for themselves? Something a little bit like this, perhaps?







Above Strut brace at front is aluminium and mounts through the inner wings to the front coil-over suspension pick-ups

Right Dash has a full complement of Porsche clocks and the seats are carbon-backed Königs



A quick look around the pits at Bug Jam this year showed that there is no shortage of engine options people are prepared to squeeze into their trusty air-cooled VWs to wrestle every last ounce of power out of them. From Subaru flat fours to 16-valve Golf straight fours and Rover V8s to Wasserboxer lumps, Type 4s and even the odd turbo diesel – they were all there. But still it seems, six-cylinder Porsche power is scant on the ground, despite the historical link between the two marques and the ease with which these engines can be found.

There are a couple of obvious reasons why, of course – the price, for one (But have you priced up a 150+ brake Type 1 engine recently?) and the sheer physical size for another. While this latter point definitely needs taking into account, it clearly can, and has, been overcome in every form of VW we can think of (Before anyone says it – there is a Fridolin with a 911 motor in it that we were told of in Germany, but the car has never been seen at a show.). So, finance and engineering logistics aside, there's really no reason not to go the Porsche route if you're hell bent on building the ultimate street VW. However, go down that route and, to do it right, you're into a whole lot more than a simple gearbox adapter plate.

Top drawer

Not content with the run-of-the-mill 150 or even 200bhp motors, which are readily available out of Porsches from the '70s and '80s, Germany's Jochen Bader went straight to the top drawer, settling for nothing less than an air-cooled, fuel injected, 285ps 3.6-litre boxer motor – the last of what many consider to be the 'real' 911 powerplant. At least, 285ps was what the engine made when it first saw the light of day in the back of a 1996 Porsche 993. Since then Jochen has been through the 911 GT3 Cup series regulations and modified the engine to fit that spec, which means the power has been hiked to 321ps, with a hefty 386Nm torque, the engine now sporting all sorts of Cup go faster goodies – from the air filter to the dry sump oiling system to the clutch and lightened flywheel.

Hooking this up to the ground is a 993 six-speed 'box with a RS differential and modified 996 Cup driveshaft. In much the same way as Jez Parsons did with his six-pot Samba (see *VolksWorld* Summer 2004), Jochen has chosen to retain the stock method of supporting the engine. He's grafted in stock rear motor mounts using nicely triangulated box sections, braced and welded to the body, which are tied into the structure of the car by way of a heavily modified Heigo rollcage. The cage is braced down to the rear of the tunnel inside the car in two places and to the tops of the rear suspension mounts too. At the A-posts, the cage again splits and goes to a driver's door bar and forward to the front suspension mounts. Doing it this way meant the suspension pick-up points could be placed in exactly the right position for the car, to ensure not only that the KW fully adjustable Competition coil-overs work as they were designed, but that the wheelbase and track look right under the Karmann Ghia skin, too.

Premium quality

As anyone who has tried to fit anything larger than about a 6x15-inch rim onto the back of a Ghia will know, space is at a premium and Jochen's plans for 8x17-inch (ET49) three-piece Speedline split rims would call for drastic action. Admittedly, it's not the lowest car out there. The coil-overs themselves are set for a sensible 40/60mm drop, but the wheels fit, the steering has full lock and the car drives like a Porsche 993, especially when you consider the pedal assembly is also Porsche 993, as are all the clocks in the dash and the shifter and mechanism, too. Before the wheel bolts could be done up, though, there was the matter of sorting the suspension, making sure all that power and potential could be used, and used in safety.

From the beginning, it was decided that the stock front beam would never do and, while narrowing it might allow the wheels to fit, it was going to do nothing for the handling and driveability. What Jochen



wanted was completely independent, coil-sprung suspension all round and so a complete 1303 framehead section was sourced and welded into place 20mm further back to maintain the 2400mm wheelbase of the Karmann Ghia (MacPherson strut Beetles had a wheelbase of 2420mm). Steering is now '75 1303 rack and pinion, with a 23mm anti-roll bar for stability in the turns. At the back, a similar

approach was taken, though this time he decided to go for the highly sought after aluminium rear trailing arms from a Porsche 944 Turbo. The word is that these are a straight bolt on fit if you've got a floorpan with so-called IRS rear mounts, and, of course, using these simplifies the marrying up of the Porsche driveshafts, CV joints, hubs and brakes. The brakes are 993 Bi-Turbo 332mm discs at the front, with the factory ABS all working, of course, and 944 Turbo rears with integral handbrake. Look closely at the underside pictures of this quite incredible Ghia and tell us this isn't one neat job – particularly

as it is still a floorpan car and retains much of the character of the original, albeit with a more modern interpretation of the running gear. Check out how the frame horns have been cut back and boxed so that they don't interfere with the driveshafts, and how the braided stainless oil lines have been routed through the end plates, linking the motor to the twin oil coolers very neatly secreted in the spare wheel well.

“There’s really no reason not to go the Porsche route if you’re hell bent on building the ultimate street VW”

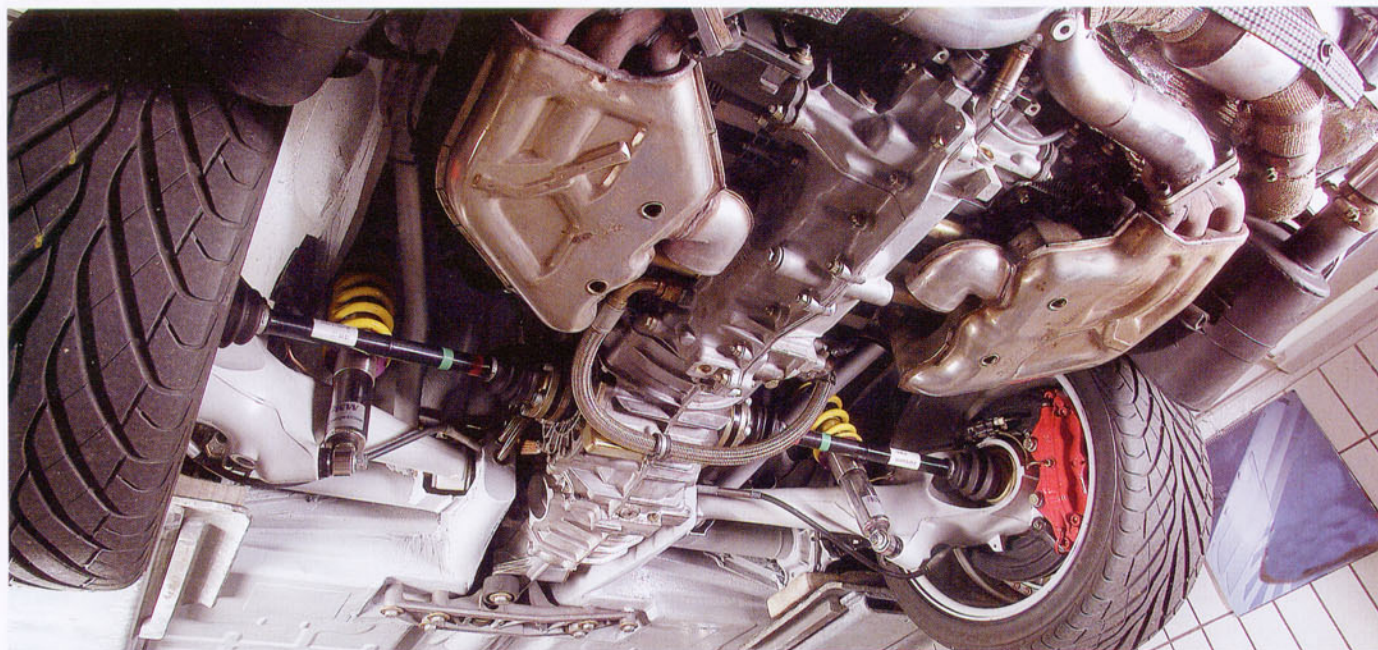
One look under the bonnet will tell you how much time and thought has been put into the car as a whole. The stock fuel tank has been modified with weld-in fittings for the fuel line and the overflow line to

the polished breather tank, and everything is neatly and thoughtfully secured. A lot of thought was put into the weighting of the car and, while the battery, fire extinguisher, CD multiplayer, ABS control unit and polished strut brace mean that there's little room for more than a couple of copies of your fave VW magazine under the bonnet, it also means the car will go round corners and not feel like it's about to take

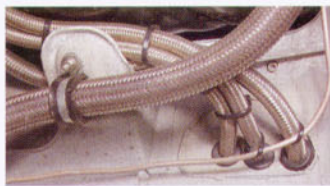
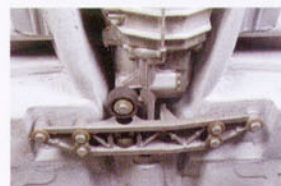
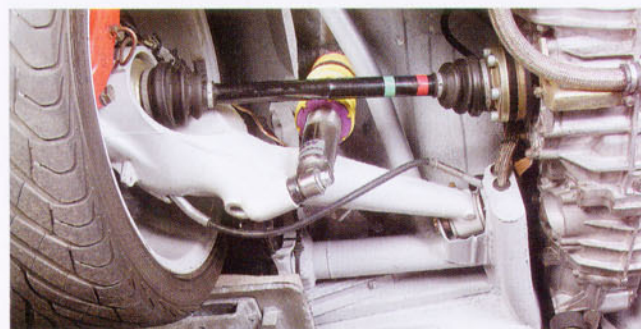


Above Bodywork modifications are subtle and beautifully done. All the arches have been pulled to clear the wheels, but it takes a trained eye to see how

Left Classic Karmann looks disguise the awesome power and engineering underneath the pretty Ghia body.

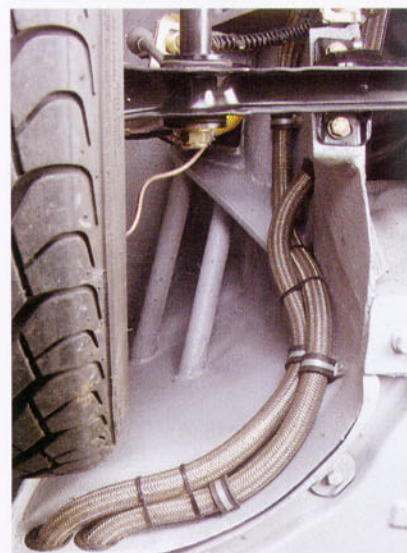


Above and below Fitment of the Porsche gearbox into the VW pan is superb. Notice how the framehorns have been narrowed, truncated and neatly boxed. Cast aluminium front mount is solid mounted while trailing arms are 944 Turbo all items

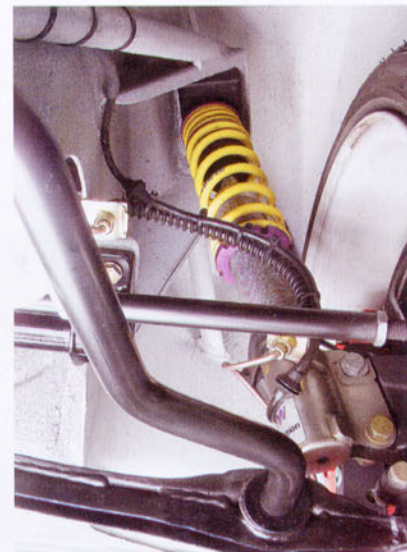
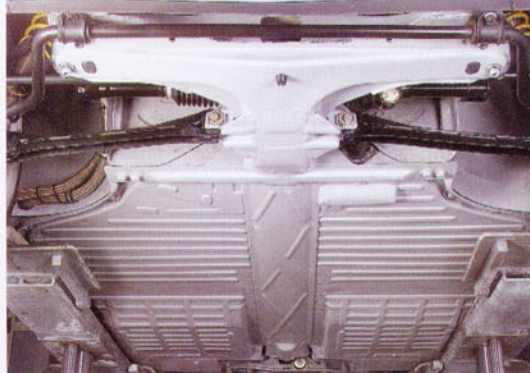


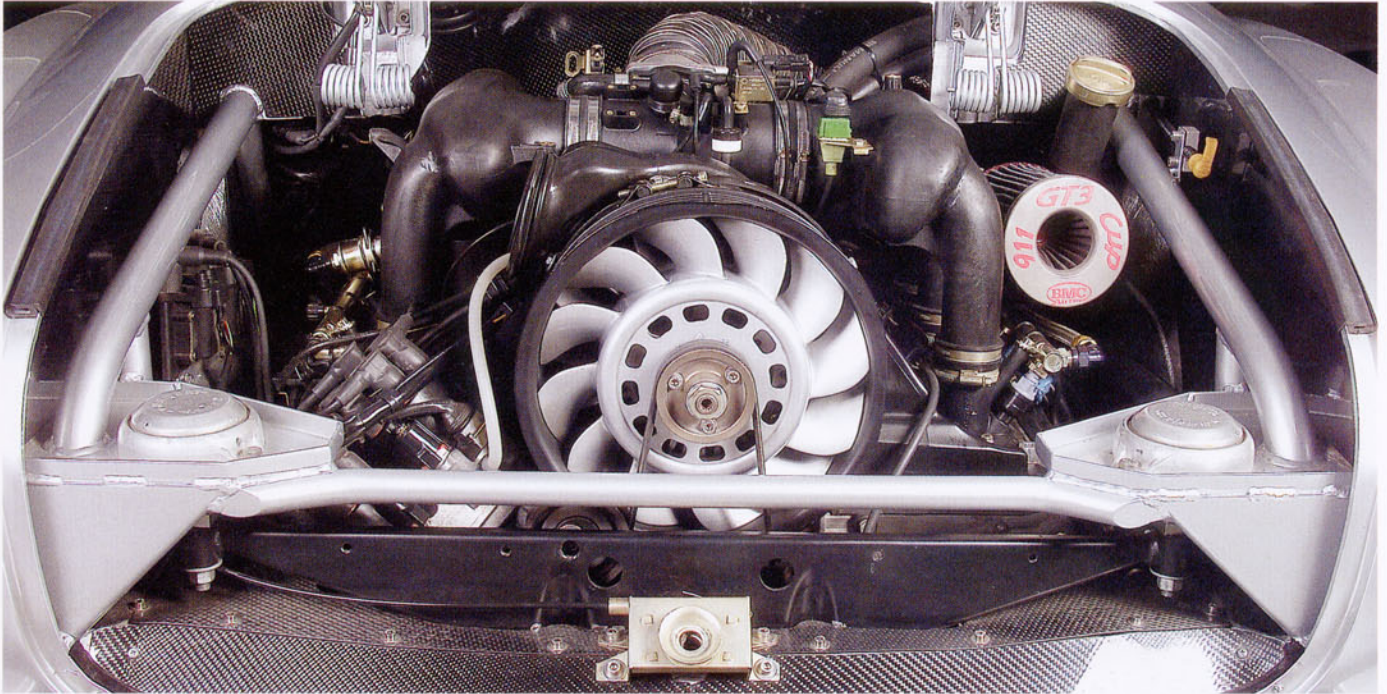
TECH SPEC

Engine tech spec: 1996 Air-cooled, fuel injected, 12-valve Porsche 993
Displacement: 3600cc **Compression ratio:** 11.3:1
Clutch: Porsche 993 GT Cup racing clutch
Extras: GT3 Cup air filter, dry sump oil system with 12-litre oil tank, lightened flywheel
Gearbox: Porsche 993 six-speeder with RS differential
Power: 321ps
Torque: 386Nm
Top speed: 186mph
Wheels: 8x17-inch (ET49) three-piece Speedline split rims
Tyres: 215/40 and 245/35
Front suspension: KW Competition coil-overs with 40/60mm front/back drop, 23mm front anti-roll bar
Rear suspension: Porsche 944 Turbo aluminium rear trailing arms, modified 996 Cup heavy-duty driveshafts, Porsche CV joints and hubs
Brakes: 993 Bi-Turbo 332mm front discs with factory ABS, 944 Turbo rear discs with integral handbrake
Extras: 1303 framehead and lower suspension arms, 1975 1303 rack and pinion steering, Porsche 993 pedal assembly, shifter and shifter mechanism



Left Two small bars are extension pieces from the integral rollcage, which support the purpose-made front coil-over suspension mounts
Below Fitting a 1303 framehead keeps the lower track control arms VW, as well as giving the correct pick-ups for the front anti-roll bar
Right Adjustable coil-overs ensure there's plenty of clearance for rims





off at high speed. This car is from Germany remember, the land of the unrestricted autobahn and the 'sensible' tuner, where big engines and big brakes go hand in hand and where having a 300+bhp fire breather out back means a car built for all-round driving pleasure.

Writing a feature on a car like this always makes it sound a world easier than it actually was to build, but there's still one major job that we've not even mentioned yet – getting the monster rims and 215/40 and 245/35 tyres under their respective arches.

Ghias with boxed rear arches have been done and, in the main, look pony. Ghias with flared lips on the arches have been done and, again, almost always look wrong, so what's the best option? Well, you find yourself a friendly metal man – someone who understands the properties of metal and who's not afraid to cut into the handbuilt Karmann Carrosserie bodywork and pull it about a bit. And what a fantastic piece of work this is. Cut through the top of the gorgeous, swooping body lines, pulled apart, flared, reshaped at the front and

extended to cover the tyres, it's so neat that few people even notice it's been done. In fact, it's only looking at the pictures from the rear three quarter that you notice at all, as the bottom of the sills haven't been pulled, nor the bottoms of the wheel arches, and the stock European spec bumpers fit just as they should.

While round the back corners, it's worth noting that the car is a '71 model, with the second biggest rear light cluster you could get on a Ghia and trigger-type door handles. It's not the best looking year Ghia, but it is the right one to pick for a project like this. The colour helps to disguise the age of the car pretty well – the Porsche Cayenne silver being one of those timeless colours that suits any pretty, curvaceous body – as does the retro fitting of bullet indicators and early bumpers.

Aside from the pulled rear arches and the deletion of the lower trim strips and the fuel filler flap, the bodywork is close to stock, right down to the wing mirrors, the badges and the window trim, which just serves to add further to its awesome looks and appeal. Let's face it, while the Karmann Ghia was bemoaned for its lack of power throughout its lifespan, no one ever pointed the ugly stick at it, and for good reason.

The hot seats

König seats are hot on the Euro tuning scene and it's no surprise to see a pair making an appearance in an air-cooled car, though it had to be something as special as this, for this particular version of the popular seats – moulded in carbon/Kevlar with Alcantara faces. Cheap? No. Cool, comfortable and in keeping? Yes. Willans harnesses do the safety bit and a Raid steering wheel does the directing. Everything else in the cabin is black, purposeful and very Germanic. Assuming they'd fit over the massive brakes, just try imagining this car with 912 steels or some other equally inauspicious wheels, sitting at the traffic lights alongside the latest Ferrari or, better still, anything from the current Porsche range. Yeah, you could have some fun with this car, make no mistake.

It's another big money car, but for that we make no apologies. Working on a magazine such as *VolksWorld*, we are fortunate to see the best VWs in the world, but, when a car like this comes along, we get as excited as the next person. And that's exactly why you'll continue to see cars like this in the pages of this magazine. It's inspiring to us all. In fact, it's what keeps us on our toes and makes this job so much fun. Jochen, you have our utmost respect. We're proud of you and, for your car, we thank you.

