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330 BHP GOLF R DSG



APR-TUNED POLO GTI 270 BHP BIG-TURBO 1.4 TSI



VW ON SHOW VW Group at IAA Frankfurt



ROAD TEST Golf S 1.2 TSI (105 PS)



EVENT REPORT Vanfest 2011

R-rated!



Whether for use on the road or race track, Milltek Sport's modified Golf R makes all the right moves, and all the right noises...



AS MD OF Milltek Sport, Phil Millington is in an enviable position. Not only in terms of his professional standing as head of one of the world's most successful aftermarket exhaust specialists, but also because of the constant stream of exciting new models which passes through the company's books, and are parked on his driveway...

Not just an indulgence, though; driven on track days as well as receiving regular road use, they all serve as mobile test-beds for a range of aftermarket products, not least of which are the various configurations of exhaust system which Milltek Sport designs and manufactures. Of course, there's also a big benefit to the customer, because if the system is good enough for the MD's company car then you can be sure that it will also fit and

work just as well, perhaps even better, by the time it reaches the production-ready version.

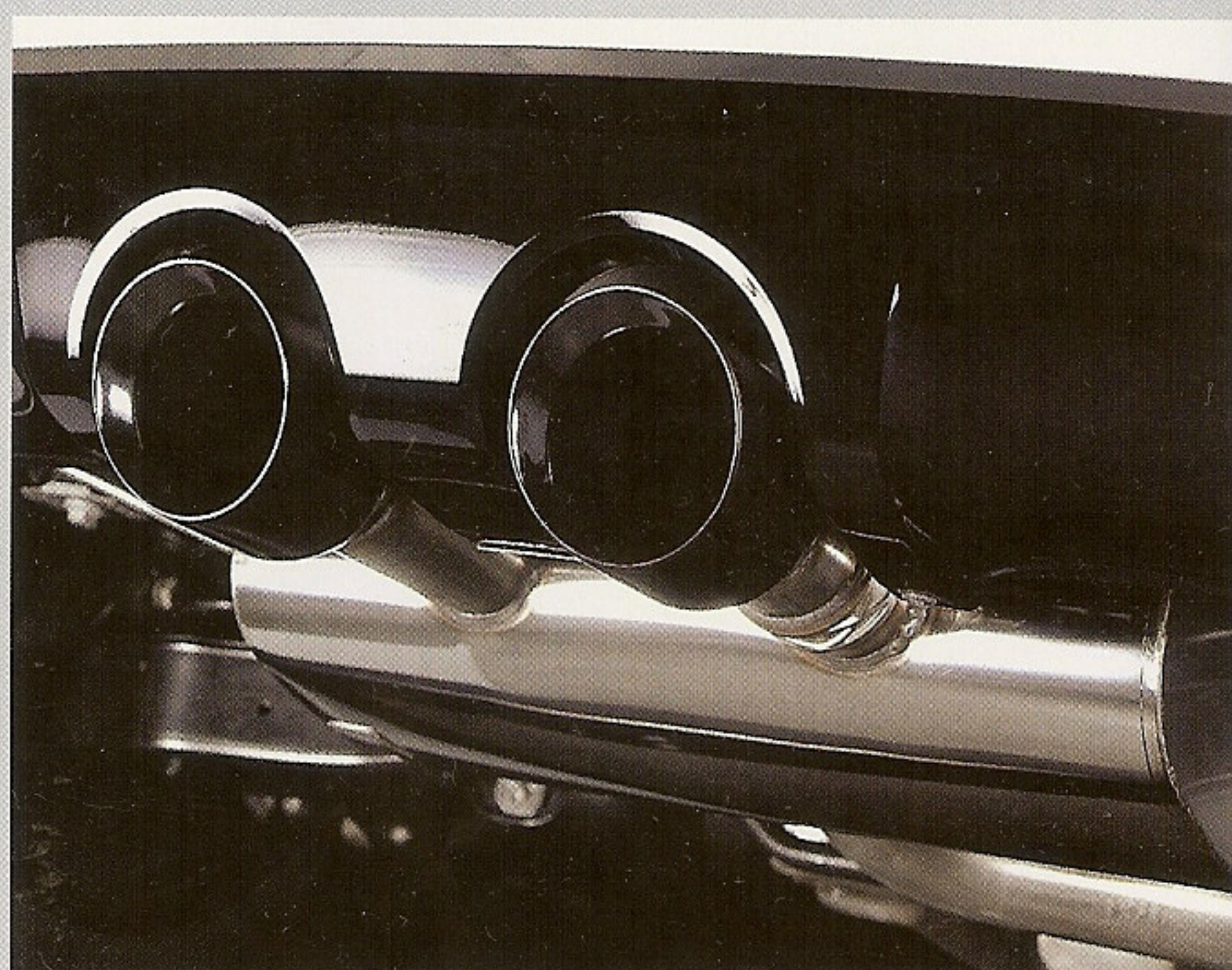
With the impending arrival of Phil's latest new company car, an Audi RS 3, we realised that the days were numbered for Milltek's Golf R and so we arranged to meet up for a photoshoot at Rockingham Raceway, where Phil was attending the BTCC race. Milltek is one of the main sponsors of the AmD-prepared Mk 5 Golf 2.0T which has been racing in the top-flight tin-top series for the last two seasons, so there's no need to ask what type of exhaust system it uses.

Phil took delivery of the Golf R (DSG) in May of last year, at which time the stars of the Milltek fleet were an Audi TT-RS and a Ford Focus RS. Both are the kind of cars that many enthusiasts

dream of driving, especially when they're remapped to around 450 bhp and fitted with a full Milltek turbo-back exhaust system. It's perhaps not too surprising that, after enjoying cars like these – with their high-performance 2.5-litre 5-cylinder engines – the 2.0-litre four-cylinder Golf R in standard form initially felt somewhat disappointing.

Never anything less than intelligent and objective in his assessment, though, Phil acknowledges that: '...maybe it was because the Golf R accommodated most driving conditions very clinically, without particularly shining in any one area. Or maybe it was because, with an ex-showroom price of well over £36,000, the expectation was high. In cost terms, the TT-RS was considerably more expensive and the Focus somewhat lower-priced

Main pic: Jim Gaisford



than the Golf R, but both cars felt more performance focused than the Golf R on road and track'.

Of course it would hardly be fair to compare a modified five-cylinder car with a standard four-pot, and the Golf R would surely benefit from the usual aftermarket modifications. Initially, it received an ECU re-map and a Milltek 2.75-inch (69.85 mm) diameter cat-back exhaust and the extra power, improved engine response and exhaust note made it more rewarding to drive in terms of performance and sound.

Ultimately, though, it still felt less crisp than either the Focus or the TT-RS. Phil reckons it was mainly due to the DSG gearbox which, while a major aid to driving in normal road use, gives the driver less than full control in 'attack' mode during the hard driving indulged in at track days.

The Golf R clearly had a lot more to give and so, during the winter months, the engineers at Milltek first developed and emission-tested a full turbo-back exhaust, with 3.0-inch (76.2 mm) diameter downpipe and high-flow sports catalyst. Meanwhile, the resonated cat-back system was sent away for homologation testing which it passed with flying colours, meaning that it now has full EC/EG Type approved certification, allowing the Milltek system to be sold throughout most countries in the world.

To allow for the increased exhaust gas flow and the change in catalytic operating cycle, the big-bore turbo-back system required a more precise ECU re-map. For this, Milltek worked closely in conjunction with James Bradley Silverstone of JBS Autodesigns, using the Custom-Code software system which results in a much better tailored re-map than the normal generic products.

'TO ALLOW FOR INCREASED EXHAUST GAS FLOW THE BIG-BORE TURBO-BACK SYSTEM REQUIRED A MORE PRECISE ECU RE-MAP...'

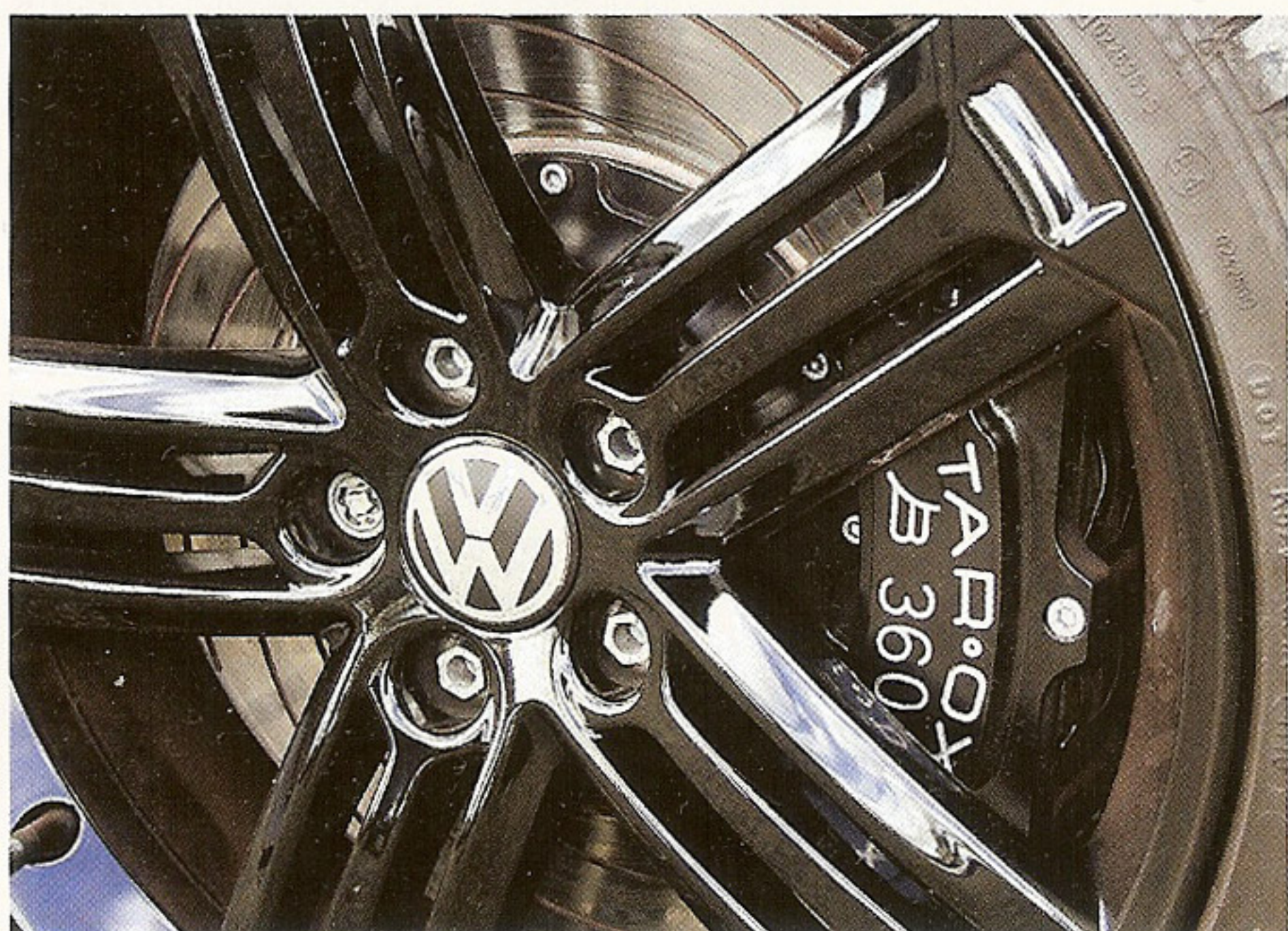
Very conscious of the need for perfectly proportioned fuelling for running at higher boost levels and high engine speeds, JBS also recommended the use of an Autotech high-pressure fuel pump. James also carried out meticulous monitoring of exhaust gas temperatures, necessary to ensure the long-term reliability of all components. This involved test-driving the car both on the open road, for subjective evaluation, and extensive static testing and measuring on the rolling-road dyno.

The power output is now rated at a conservative 330 bhp, up from the 266 bhp (270 PS) of the standard car, with torque now at an impressive 430 Nm (317 lb.ft) – a major improvement in pulling power





'THE POWER OUTPUT IS NOW RATED AT A CONSERVATIVE 330 BHP, WITH TORQUE NOW AT AN IMPRESSIVE 430 NM...'



'MASSIVE BILLET ALUMINIUM 10-POT CALLIPERS PROVIDE POWERFUL AND PROGRESSIVE STOPPING POWER, RESULTING IN HUGELY INCREASED CONFIDENCE WHEN USING THE NEW-FOUND PERFORMANCE TO ITS FULL EXTENT...'

compared with the standard 350 Nm (258 lb.ft.)

Clearly, the enhanced engine characteristics would also need some adjustments to the DSG transmission and although, at that stage, JBS wasn't able to change the controlling systems for the DSG gearbox, the sensitivity of the change-up points was improved, providing a more involved and controlled driving experience. Since then JBS has developed a much more comprehensive range of upgrades for the DSG transmission, raising the

torque limit, improving shift response, raising the redline, and enhancing the launch control function.

While the Golf R's standard 345 mm brakes are well up to the job for normal fast road use, the extensive track driving and high-speed testing of the car soon took its toll on the original brakes and so Phil happily accepted an offer from Tarox to try out its new 360 x 30 mm front brake kit. As well as the larger diameter drilled and vented discs, which fit neatly within the 19-inch rims, the Tarox kit uses massive

billet aluminium 10-pot callipers which provide powerful and progressive stopping power, resulting in hugely increased confidence when using the new-found performance to its full extent.

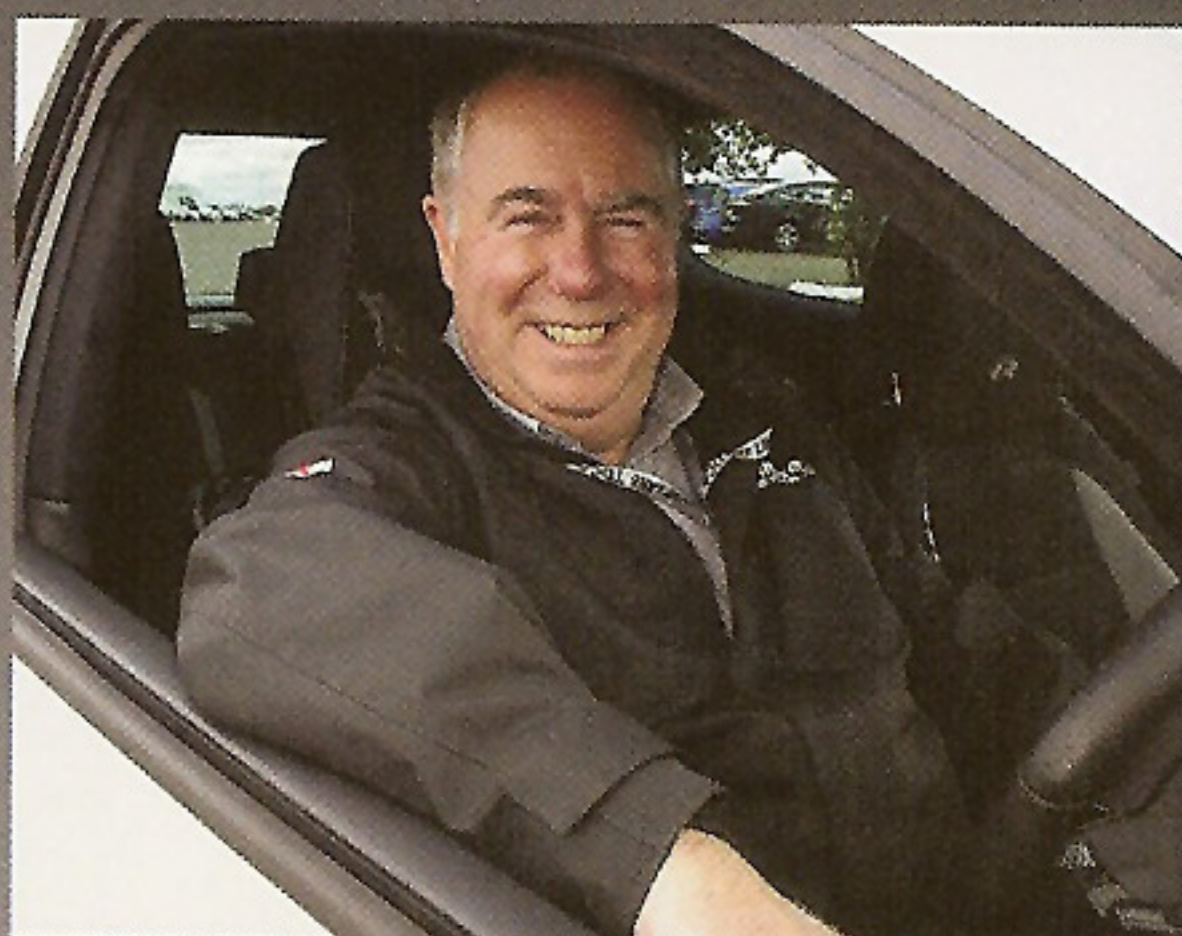
For road use, the Golf R rolls on the optional 8.0 x 19-inch diameter Talladega rims, painted gloss black and fitted with Dunlop Sport MaxxGT in size 235/35 ZR 19, while for track days it runs on 8.5 x 18-inch Team Dynamics Pro Race multi-spokes, fitted with Toyo R888 tyres.

No aftermarket suspension, though. As well as the DSG option, Phil had originally ordered the Milltek Golf R with the optional ACC chassis control system, which allows different modes to be selected for the damping rate. It'll never substitute for an all-out track day suspension set-up, but for a road-going car it provides an excellent compromise.

In full auto 'Normal' mode, the system is adaptive, tuning in to the general driving style and reacting accordingly, while the Comfort setting is selected for motorway cruising and rough roads when passengers are on board. Needless to say, the Sport setting is the preferred choice for solo fast-road forays and use at track days, not only providing firmer damping for good body and roll control but also giving a slightly sharper steering response.

Thanks to the modifications, Phil reckons the Golf R now truly lives up to its badge, and his expectations: 'Its performance on track is relentlessly consistent, regularly passing higher-powered vehicles due its fluent power delivery, impeccable handling and awesome brakes, but take the car away from the race circuit and it's equally happy facing a long cross-country journey or a trip to the shops'.

There's only one remaining niggle, a little detail which would make the Golf R

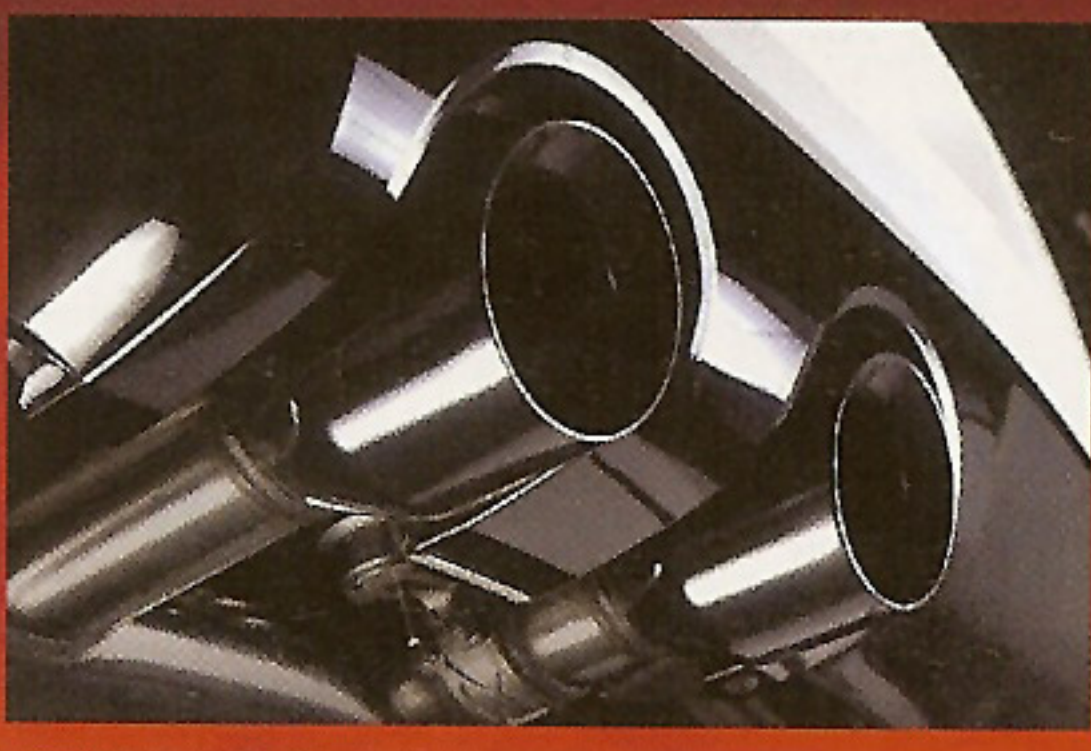


perfect in his eyes. Phil explains that 'if Volkswagen could make a Bluetooth system to work with an iPhone, then the car would be complete!' We can't help thinking that maybe he's overlooked the obvious possibility that it should have had the 2.5-litre 5-cylinder engine, but maybe that's still to come for the Mk 6 Golf range. In the meantime, Phil is looking forward to driving his new RS 3. No doubt it will make parting with the Golf R just that little bit easier. 🇧🇪

THE REAR silencer of the Milltek cat-back exhaust system features an Active Exhaust Valve (AEV), a vacuum-operated flap which works on one of the dual tailpipes.

When closed, the valve helps to keep the volume to a minimum – 86 dB on a static test, to be precise – but at full throttle the valve opens up and allows the exhaust its full voice. This provides the best of both worlds; making the Golf R easy to live with on the everyday commute, remaining subtle and civilised when cruising, and only releasing its full volume when it is used in a more determined manner.

Two types of cat-back systems are offered: resonated, with a centre silencer, and non-resonated (louder!) where the centre silencer is replaced by straight pipework, and there's a choice of polished, gloss black or lightweight titanium tailpipe trims.



'ITS PERFORMANCE ON TRACK IS RELENTLESSLY CONSISTENT WITH IMPECCABLE HANDLING AND AWESOME BRAKES, BUT IT'S EQUALLY HAPPY FACING A LONG CROSS-COUNTRY JOURNEY OR A TRIP TO THE SHOPS'

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