

MASTER OF MOTORSPORT

From a new Hannover base, Klaus-Peter Rosorius masterminds Volkswagen Motorsport's activities. He talked to Tony Lewin about Formula Three success, the Golf rally programme and some surprising special projects

The problem with Volkswagen Motorsport in Hannover, complains Manager Klaus-Peter Rosorius, is that some of its projects are just too successful.

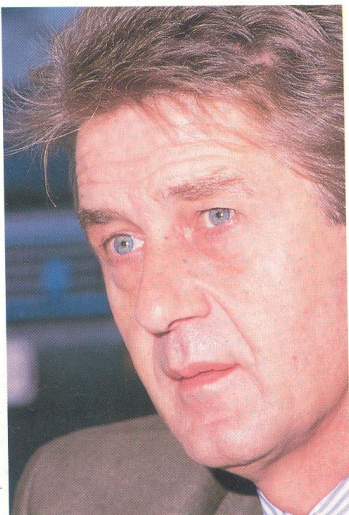
"Our first big venture was the Formula Three engine," he explains. "In 1982 we finally persuaded the Board to give the project its backing, and the development work went well.

"Our problem came later—in the races. The engine won everything—it was 100 per cent everywhere. England, Germany, Italy—everywhere. As a result of our dominance, people became a little bored with the racing and the Volkswagen Board began to ask where all the publicity had gone."

It must have been something of a relief to Rosorius when other manufacturers—notably Toyota, Alfa Romeo and Mugen Honda—joined the F3 fray to give some serious, though infrequently successful, competition to the Wolfsburg marque.

Motorsport's latest venture, with an even greater Board commitment—to the tune of a production run of 5000 special cars—is, of course, the Rallye Golf. Production examples of this aggressively styled, 160bhp G-Lader supercharged Syncro hotshot are just beginning to reach customers across Europe, including Britain. But this time the ever-pragmatic Rosorius has had to face a series of clashes with rallying's governing body, FISA, over the development of the Group A competition version of the supercharged four-wheel-drive Golf.

"We lost quite a bit of time last year when we halted the programme after FISA had imposed a 40mm inlet restrictor on us, the same as that applied to turbocharged engines," he explains. "But we persuaded a FISA technical



Too much success has been a problem for Klaus-Peter Rosorius

official to come down to Hannover, where we demonstrated several different engines. After that he realised the characteristics of supercharged engines are very different to turbos and eventually the restrictor ruling was suspended until the end of 1990."

That still leaves a potential sword of Democles hanging over the rally project, for if the restrictor is re-imposed for 1991 the eight-valve G-Lader engine will not be capable of going beyond 230bhp—at which level it would be hopelessly uncompetitive against



Experimental 155mph Corrado with Volkswagen Motorsport HQ

the 300bhp turbos in the world rally championship.

FISA's decision whether or not to re-impose the 40mm restrictor for 1991 will, Rosorius reckons, depend on how powerful the unrestricted Rallye Golfs prove to be.

"Our test engines are giving about 270bhp at the moment," he says, "and with a bit more work the next step would be 280 or 285. Nearly 300 should be possible eventually. The supercharger is particularly good in the lower and mid ranges—ideal for rallying—while a turbocharger's power is mostly at the top end."

It is, in any case, the development of the transmission, rather than the engine, which has dictated the date of the Volkswagen rally team's entry into international competition—an entry already held up by later than expected homologation of the necessary 5000 production run. All at Motorsport concede that, for the harsh environment of World Championship Group A rallying, the G60's present transmission—almost unchanged from the standard production car's—will have to be strengthened. Motorsport is working on two parallel tracks at the moment: firstly on a further strengthening of the standard five-speed gearbox, a solution which will work well for Group N (close to showroom specification) and for rally privateers, including those in the UK, and, for the Group A works team, a new and much bigger six-speed gearbox.

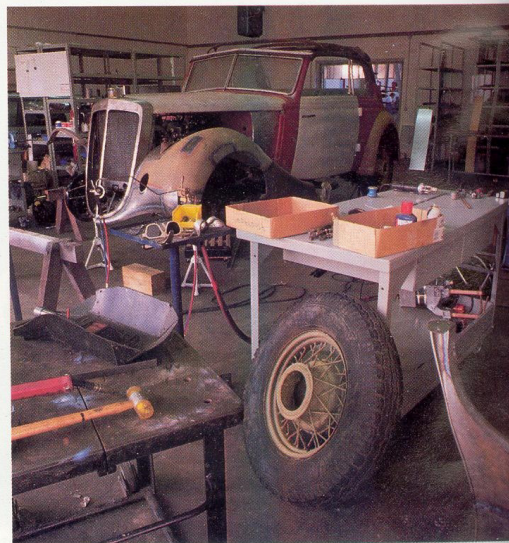
"We hope all this work will be completed in the next couple of months," says Rosorius. "I'm not yet sure which our first event will be, but we will be competing by March or April. Erwin Weber will do two or three test rallies and, then, as a result of that experience, we will



Intensive development of Group A Rallye Golf for international rallying is main activity in squeaky-clean Hannover workshops



Lewin tries phenomenal 142mph Golf Limited Edition (above). Fearsome twin-engined, 600bhp Pikes Peak Golf gathers dust (below left). Projects include rebuilt of rare Horch (below right)



be able to homologate the necessary parts to make the car fully competitive in Group A. If all goes well we may enter a second car in the latter half of the year, and from January 1991 we will contest the whole of the World Rally Championship series."

In Germany, there are signs, too, of a revival of interest in Formula Three circuit racing – an interest never lost by Volkswagen in the UK, where the F3 Championship is the route to the top for any aspiring Grand Prix driver – and Klaus-Peter Rosorius does not mind admitting why the Volkswagen Board is suddenly interested in this class again.

"It's because of GM. We don't mind competing against engines from Honda, Toyota and Alfa Romeo and sometimes losing. But GM we've got to worry about, for, in the passenger car market, Opel in Germany are our main rivals and the Board is understandably sensitive to that."

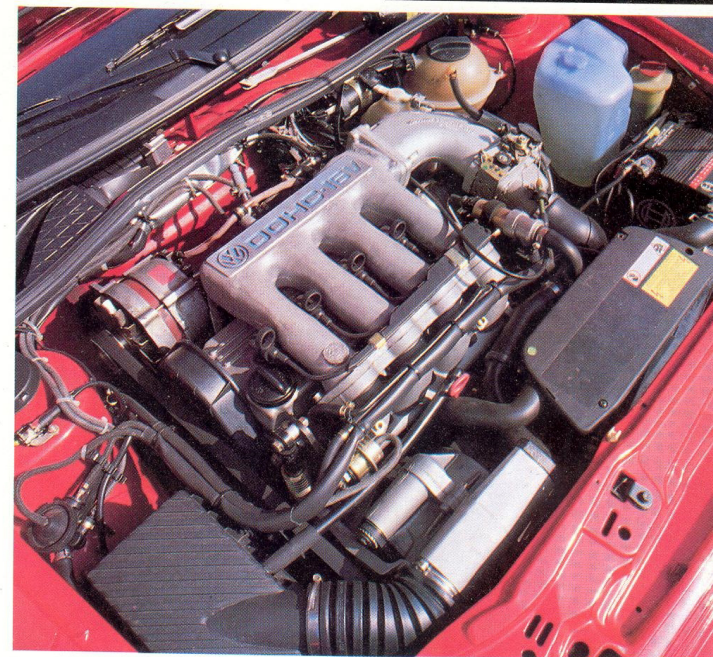
With 16 valves, two litres and not a little help from Lotus, the brand-new GM Vauxhall-Opel Formula Three engine would appear to enjoy huge technical advantages over Volkswagen's long-running and all-conquering eight-valve F3 unit, taken straight from the Golf GTi. But as Rosorius points out, the margins are far smaller than one would think: "All engines in F3 have to have a 23mm restrictor in the inlet manifold, and this tends to even out the differences between the eight-valve and the 16-valve units. Even the older engines are close on top-end power – you can never get more than 6000 revs because no more air can get in, and this makes them all very reliable."

The chassis builders evidently like Volkswagen's eight-valver: "It's very light and very small," points out the Motorsport boss, "and this enables them to achieve good aerodynamics."

"I'm sure our eight-valve engine will be good enough for the next two years," he adds. "We're working on a new injection system which will give us more power low down: this is a key advantage as it's hard to find extra horsepower up top – most of the cars are within a couple of bhp of 170."

Just in case this optimism turns out to be unfounded and GM begins to look too serious, Volkswagen Motorsport has another card up its sleeve – the two litre 16-valve engine out of the catalysed Passat and German market Golf GTi. The race engine is due to go on the test bed soon, but the necessary 5000 production cars with the exact configuration for the purpose have not been completed yet and Volkswagen will have to wait until April for full homologation.

What makes Volkswagen Motorsport so unusual among manufacturers' competition departments is the sheer variety of work that goes on under the new and vastly bigger roofs of the organisation's squeaky-clean Hannover base. Rows of hoists support Rallye Golfs in varying states of build or dismemberment, while gathering dust in far-flung corners are relics of Motorsport's illustrious past – including the fearsome, twin-engined – one in the nose, another in the tail – 600bhp Golf built for the



Too much for average driver? Sixteen-valve, 210bhp G-Lader engine powers experimental Corrado to 155mph

Pikes Peak hillclimb in Colorado. The eagle-eyed can also spot some fascinating projects that never progressed beyond the prototype stage – a Polo with a gaping expanded engine bay is a particularly intriguing prospect.

A growing side of the business is the restoration of classic cars. An historic Audi has been given a ground-up rebuild and now sits proudly in the Volkswagen museum in Wolfsburg; in its place at Motorsport is a rare Horch – represented in another of modern Audi's four rings – which, to my inexpert eyes, looked as if it needed an extremely thorough restoration.

In another corner lie some Beetle Cabriolet bodysells. The reason for their presence is interesting; following an enquiry from a customer, Motorsport agreed to build him a brand-new Cabriolet from new parts. Ordering the bodysell from Volkswagen's giant parts centre, Motorsport discovered there were only five still in stock and no more scheduled to be manufactured. In a bold move, Motorsport ordered all five: two completed cars have been sold so far (at around £20,000 each in Germany) and a third is to be built for a customer shortly.

Excited though Rosorius is about this growing side of the establishment's activities – he hopes soon to be able to restore racing cars as well as road cars for private customers – he becomes more enthusiastic still when the conversation turns to the special editions of standard production models he is paid to dream up. The first of these – the phenomenal 142mph Golf Limited Edition (described in the autumn 1989 issue of *Volkswagen Car & Driver*) – was produced last summer and the meagre 70 car production run was sold out as soon as the first rumours of the machine's ex-

istence filtered out of the Hannover factory.

Motorsport's thinking behind this particular project was simple: combine the 16-valve cylinder head of the GTi with the G-Lader Syncro chassis of the eight-valve Rallye Golf, and with 210 refined, reliable and very flexible horsepower a brilliantly quick, sophisticated and subtle road car would be the result. The five-door bodysells had their running gear updated and their interiors leather-trimmed at Motorsport, where the 16-valve G-Lader engines were also built.

Rosorius is less specific about what the next project will be. He has already built a 210bhp, 16-valve, G-Lader Corrado, capable of 155mph and more, but opinion inside the company is that for the average driver this is too much power for the front wheels only. A Syncro Corrado? It would be possible, but difficult. The whole floorplan would have to be changed. The European market Passat Syncro, Rosorius points out, already has all the necessary hardware in place to benefit from a hefty 210bhp...

The most immediate project, however, is another Golf. And the good news is that it will have the same superb powertrain as the original Limited Edition. It will be a two-door and will look "a little different," according to Rosorius, and is likely to carry a slightly lower price tag and a 'Limited 2' badge. More eager owners will be able to benefit, too; Motorsport is buying and hiring sufficient equipment and mechanics to achieve a one-a-day build rate, up to a total of 200.

And if Volkswagen is far-sighted enough to build a further 4730 examples, surely the 'Super Golf' could instantly clean up in all classes of international rallying.