

Track Day Volkswagen Racing Golf GTI

RacingLine were contacted in 2005 by keen track day driver Phil Morris with a brief to build him a 'race car for the road'.

This was the first DSG car modified for track use in the world, and so presented new challenges for the RacingLine engineers.

Phil participates in many track days each year with the Golf, driving it to and from each event with no mechanical reliability problems experienced. It is of course a devastatingly quick car on track, quite capable of embarrassing road-going supercars.



When this project was commissioned by Phil Morris, our first task was to source a donor car. Phil specified left hand drive and DSG, and of course we wanted a 3dr shell with the most basic specification available.

With only a few months of UK sales of DSG cars, as usual our search led us back to Wolfsburg and a nearly new red car was sourced and driven back to the UK (pictured in the snow at the Essen motorshow en route home).



Without Phil even driving his new road car it was stripped to a bare shell for the fabrication and cage work to begin.

Meanwhile, as the first ever usage of the DSG for track work, RacingLine technicians stripped the complex gearbox down for investigation. The principle challenge was to source a limited-slip differential which had never been done before. With the standard unit removed, the team sent dimensions and specs to suppliers around the world before commissioning a UK company to create us a one-off LSD.

Decisions had to be made on how close to a race car this should be. Phil had a very clear vision that the car should not be compromised. Part of

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Phil's thinking was that the car should be capable of complying with the Volkswagen Racing Cup regulations. Phil did not have any intention of racing, but this meant that there was a ready market for the car in future if and when he decided to sell (having previously had great trouble selling a track day car for anything approaching what had been spent on it).

So in the end, the locking, ventilation and radio were left in the car on the basis that it would make life easier on long road trips but could easily be removed from the car to turn it into full race spec.

The final preparation was to fit the new number plate that Phil had purchased - V111 DSG (or VW DSG)!

The RacingLine team went with Phil to a few track days to set the car up to his taste. The original race set up proved to be quite oversteer-biased, leading to a few hairy moments for Phil as he learned the car. But with some adjustments to the rear geometry we found the handling 'sweet spot' and he hasn't looked back since!

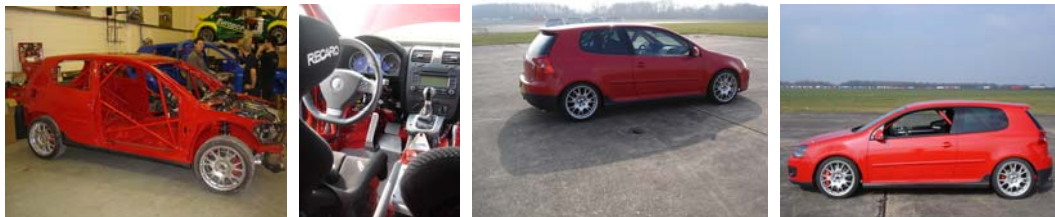


Recent modifications include an upgrade to the Stage 2 engine map to provide 268bhp and some additional mid range torque.

It remains an unusual track day vehicle amongst the regular Porsches, Caterhams and Lotuses, and one that constantly attracts attention from other drivers. It's balance of speed, reliability and usability make it the ideal car for Phil, and should he ever come to sell, there should be a ready market for the car.

This really was one of RacingLine's favourite projects that we are always pleased to see back in the workshop for it's annual service!

Phil's own account (published in Volkswagen Driver magazine) follows.



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Phil Morris' Story:

It was in the aftermath of a fairly serious motorbike accident in 2000 that I decided that in future I would get my speed kicks on four wheels instead of two. The main problem was that as a result of that accident, I could no longer drive a car with a conventional manual 'box and a clutch.

During the eighties I had a series of fast Alfas, and it was to Alfa that I turned for a track day car. I was inspired by their 156 WTCC cars (sooo pretty) and for good measure their Selespeed robotized manual gearbox seemed to fit the bill.

The 156 took me 3 years to develop into a reliable and (fairly) quick track day car (Alfa UK refused to help at all and the Alfa Owners Club is focused more on the older RWD cars from the Alfa glory days). The main problem was that I was ploughing a lonely furrow with the Selespeed system and no one wanted invest any time and/or money in helping me. The upshot was that I spent a great deal of money and ended up with a great chassis that was woefully underpowered by a standard 2.0 twin cam. The Selespeed ECU, I eventually was to discover, would not countenance modifications to the engine, so that was my lot.

Frustrated, I sold it to a club racer who has since taken it to a first and two seconds in his (production) class.

However, Alfa (and Ferrari and Maserati) had blazed a trail that others were now following and updating. After much research and study of BMW's SMG and VW's DSG systems I reckoned that the DSG held most promise for my needs. And surely, I thought, a Golf would make a great basis for a reliable track day special?

A quick search of the interweb led me to VWR and MD Sam Roach.

We met a couple of times to discuss the project and I was impressed by the can do attitude and the resources to match at VWR.



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Phil Morris' Story (Cont'd):

Finally, in November 2005, the brief to build a DSG equipped race car that would be eligible for the VW Cup championship and at the same time remain road legal was agreed.

Although I am not, at the moment, intending to race the car, the VW Cup regulations were used to define the race part of the specification, while the road part of the spec was defined in that the car should be able to be driven safely and legally to the circuit at Spa Francorchamps in Belgium. Using the Belgian motorway system. At night. In the rain.

I think many companies would have baulked at the manner in which these two elements of the specification seemed to oppose each other. VWR, however jumped at the challenge of overcoming these seeming contradictions.

Sam offered to help me find a car suitable for conversion, and by beginning of December 2005 we had a pristine Golf GTi, 11 months old and sourced from Germany, sitting in the VWR workshop.

By March 15th 2006 we were at a cold but dry Bruntingthorpe proving ground for the first shakedown, and then three days later at Donington Park for the car's first track day.

The air temperature at Donington that day did not rise higher than 3 deg and the track temperature was hovering around 1 degree. On the 6th lap of the day, pushing too hard too soon, I spun the car in the Craner Curves and ended up in the gravel trap. As I limped the car back to the pits, with pebbles rammed in every orifice, I think we all wondered what we had let ourselves in for.

But we all stuck at the task, and with continual cooperation we have worked together to hone the car's multi adjustable chassis set up and match it to the FSI engine's enlarged stable of horses and my driving style.

The epitome of this was Silverstone on July 19th. Track Day number 5 (Donington x 2, Oulton and Croft) for me and the Golf and the day



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Phil Morris' Story (Cont'd):

when all the pieces of the jigsaw came together. A final round of set up refinements and I feel now that this truly is the hottest of hot hatches.

The day at Silverstone dawned with hot sunshine that was only going to intensify. Later to be confirmed as the hottest day of 2006 in England, it was a day when I regretted the weight saving fervour that had led us to rip out the standard air con system last winter. No matter, what's a little perspiration if it means that we can avoid understeer at Woodcote?

With a car this responsive, the challenges of the GP circuit were to be relished. I preferred the cerebral approach demanded by Stowe, where a late (not yet, not yet) apex was followed by an on boost charge down to the next challenge. But I have a strong feeling that the car was looking forward each lap to the next time it could turn into Copse in 5th gear, sniff out the apex with the enthusiasm of an iron filing heading for a magnet and then leave the scene in a cloud of fine Pirelli rubber particles as we four wheel drifted out towards the exit cone.

With 250 horsepower, a lot less weight than standard and the DSG 'box shifting ratios in milliseconds, we were keeping up with some mighty machines (many of them German and costing upwards of £65,000) on the straights and then closing in on the brakes and through the corners until they politely moved over to let the Golf through. Track days really are a buzz.

Finally, with two tanks of super unleaded now adding to the global warming that has made this such a great summer, it was time to leave Silverstone and allow the car to demonstrate the second part of its design brief by cruising up the M1 and the A50 to Cheshire. And to cause something of a stir; as fellow motorway users clocked the low set stance, the wide BBS wheel, the wrap around Recaro and decided that this was clearly a refugee from the BTCC that had somehow taken a wrong turn and ended up in the middle lane.

Phil Morris

