

RALLYING CRY

A Porsche is set to return to the World Rally Championship via the unlikely route of historic rally experts and a GT3 Cup car.

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Porsche is back competing in the FIA World Rally Championship. Or rather, a Porsche 911 GT3 has made its debut in the FIA World Rally Championship and it's all thanks to those geniuses at Tuthill Porsche.

If you follow historic rallying you'll know exactly what Tuthill is capable of when it comes to building 911s for special stages. Such as winning the East African Safari Rally, dominating the European historic rally scene and building a fleet of 911s that you and I can hire to dance around a frozen Finish lake every winter. But its latest project is something very different – and very special.

"I entered a 996 in the WRC Swedish Rally in 2006, but nothing came of it," says Richard Tuthill, the ball of energy who runs Tuthill Porsche alongside his father, Francis. "It's something I've always wanted to do and after a lot of work it looks like we're going to be entering a round of the WRC in a 911."

Before we get ahead ourselves there's a bit of homework with regards to explaining the World Rally Championship setup. The front running cars are called WRC cars and have to be powered by a 1.6-litre, fuel injection, turbocharged four-cylinder engine fitted with a 33mm air restrictor with peak power restricted to 300hp. The block and head of the engine have to be based on the standard car but items such as cranks, con rods, pistons, cylinder linings, valves and camshafts can be modified. They must run a four-wheel drive transmission through a sequential gearbox and use mechanical differentials front and rear. They can fit 300mm brake discs for gravel and 355mm discs for Tarmac rallies.

The main contenders come from Citroën, Ford, Hyundai, Mini and Volkswagen in the shape of mundane-looking hatchbacks. Below this top class are three further categories with variations of the same regulations with different size air restrictors to limit power outputs and there are individual minimal weights of each class. Of the four classes a 997 GT3 Cup car is ineligible for all four. For a start it has too many cylinders, too few driveshafts and too much power.

However, in 2011 the FIA introduced an RGT class specifically for GT cars to be able to rally, although welcomed by fans and competitors it required a manufacturer to build a car specifically for the regulations and to be homologated, which would mean at least 30 examples had to be built. Aside from Lotus who built an Exige R-GT rally car that it displayed at various international motor shows, the only other manufacturer to show interest was Aston Martin with its V8 Vantage.

Ultimately, the investment and commitment required by a manufacturer has meant the category has never really got off the ground. But in 2014 a change to the RGT regulations meant individual cars could be homologated via the

FIA Technical Passport route, which meant instead of building 30 specific cars you could start with any road car so long as 30 examples have been made. Then it's a case of working with the FIA to get the car its Technical Passport to go rallying. This is not a quick form-filling exercise. It starts with a 70 page document that requires forensic examination to determine what is and isn't required for your chosen car. It's this route Richard has gone down with the 997 RGT.

The car started life as a 997 Cup car (2009-2011) and has required a great deal of effort to prepare it for a life on the stages of the WRC circuit. It may look like a Cup car that requires a polish but the effort that has gone into preparing it in order to achieve its Technical Passport has taken a great deal of time and not an inconsiderable sum of money. "Starting with a Cup car seemed the logical starting point," says Richard, "because even though we were building an individual car in order for it to receive its own Technical Passport you still have to start with a homologated road or competition car. Porsche builds hundreds of Cup cars a year so that was the easy bit!

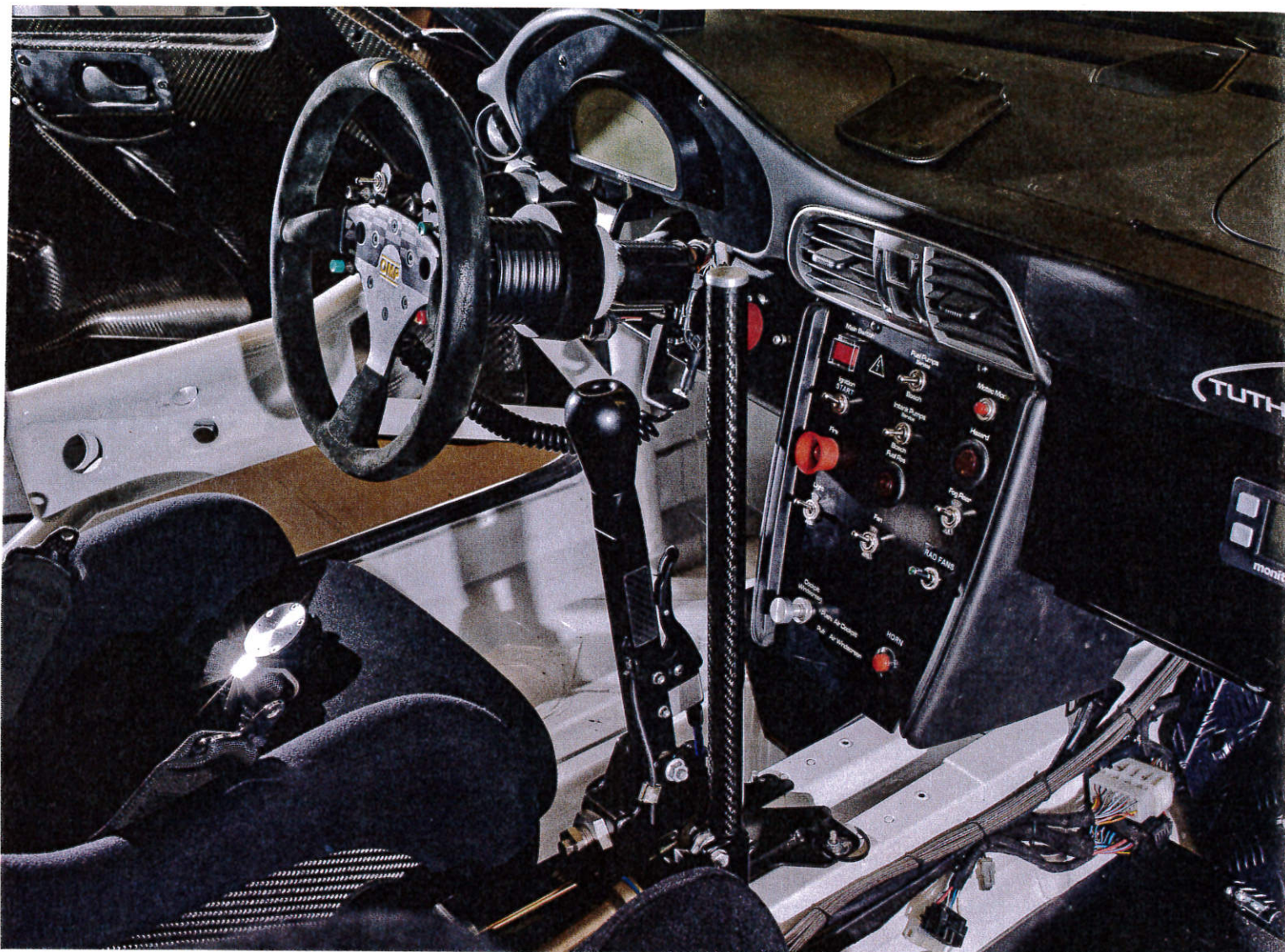
"There is also a great deal of FIA safety kit already built into the car from the factory. That saved some time and money, especially with the roll-cage. The FIA is, quite rightly, very focused on side-impact protection – when you hear of a fatality in rallying inevitably it's because the car has had a heavy side impact – and it's meant we've had to move the side bars that are behind the door as far out as we can and then we've had sections of foam specially made to fit between the cage and the seats. Another problem, however, was that the Cup car comes with carbon fibre doors which didn't please the FIA, but we argued that if they are homologated for circuit racing they should be for this rally car, too. A metal door isn't going to offer any more protection than one made from carbon fibre anyway. The FIA agreed, eventually, but we've had to have new inner carbon door skins made to accommodate the cage." Other concessions to side-impact safety include bars that connect the seats to the roll-cage and the windows in the doors, manufactured from a strong, shatter-proof Perspex need to be removable so the driver and co-driver can punch them out should their only means of exiting the car be via the window; the solution is to score around the window frame so they can be pushed out. There is no instruction manual for the team to solve the unique conundrums they come across.

The running gear is as you'd expect on a Cup car with a 3.8-litre Mezger engine and a six-speed sequential gearbox driving the rear wheels. The engine is untouched – "Porsche build these things strong enough" – save for a 36mm air restrictor that reduces the engine's power output to 300hp from the original 430hp. The gearbox, however, is a little different. "Cup ratios aren't suited to rallying so we've selected our own,





Sharing workshop space with some of the very best historic 911 rally cars has rubbed off on the new 997 GT3 RGT. What started as a Cup car is now a fully fledged 911 WRC rally car



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which we handed to the FIA and said 'here you go, these are the rations we want to use'."

The big change to convert a Cup car to a rally car is the chassis and specifically the suspension. "We've worked with EX-TC for many years on the old 911s and our ice driving cars and what these guys don't know and understand about dampers isn't worth knowing. And their WRC pedigree is beyond doubt – they won nine WRC World Championships with Citroën..."

"The work EX-TC has achieved along with our project engineer Graham Moore (ex-Prodrive) is remarkable. If you've ever driven a 997 GT3 you'll know that tight, bumpy country lanes is not its natural habitat, but the first time I drove the car I was genuinely shocked at how well it behaved over the bumps and crests. Over jumps it lands nice, flat and smoothly, which is crucial in rallying and the dampers settle so quickly. Even though we have more travel in the

suspension and the dampers do more work than the springs, the chassis has reacted really well, which was a huge relief," explained Richard.

The regulations mean the GT3 RGT has to run 18-inch wheels as the Cup car was homologated with that size wheel. The brakes are standard GT3 Cup brakes, and even though the discs are too big according to the regulations, Richard successfully argued that the 997 was a bit chunkier compared to a WRC car and reducing its braking performance probably wasn't the safest option. The FIA agreed.

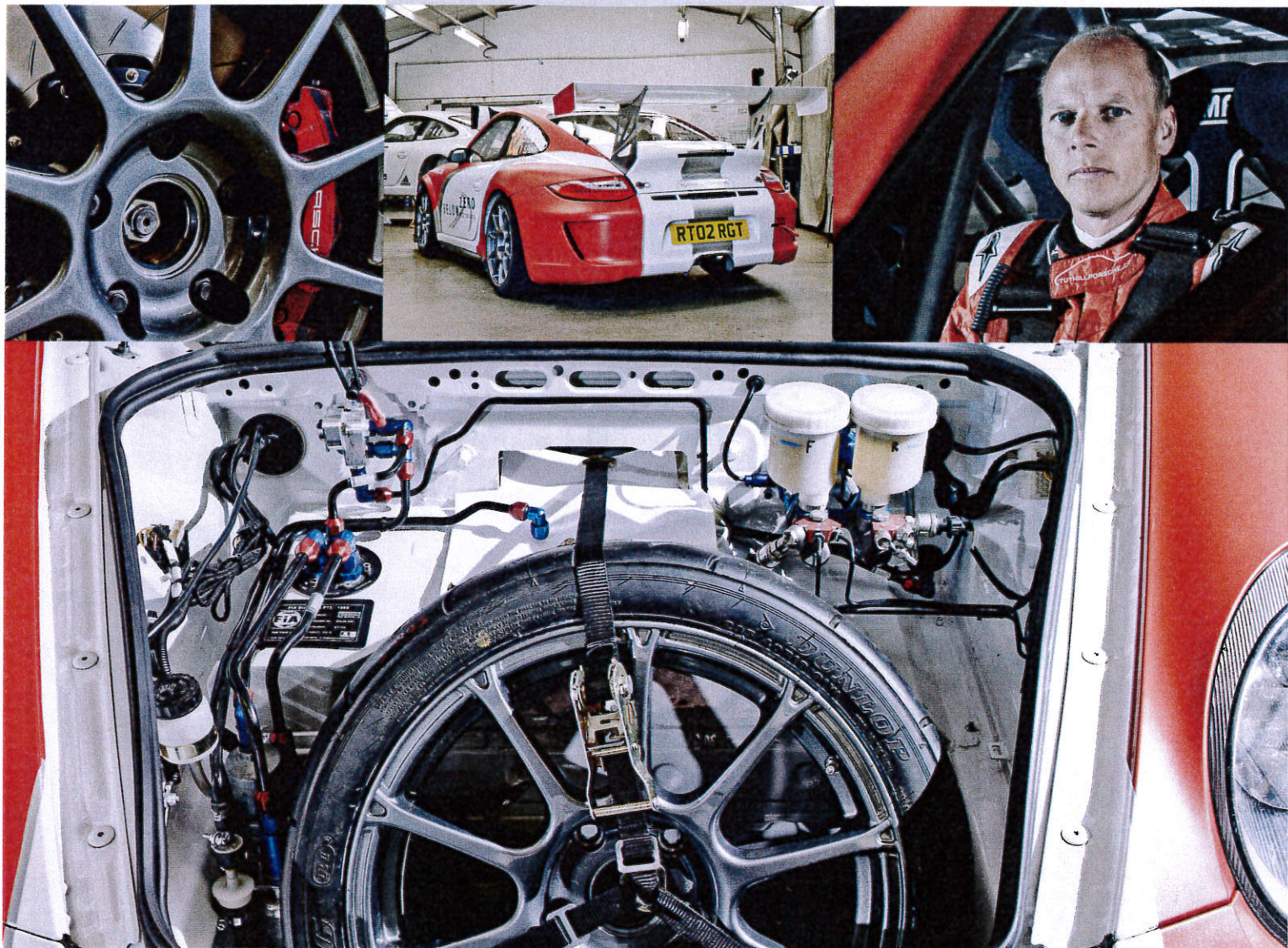
The project has been a long and sometimes complicated one. "The FIA has given us great support, Michelle Mouton (the FIA's head of rallying) is behind the project and wants to see the RGT class succeed and bring some variation to the rally stages," says Richard.

"I love WRC. I think the cars are amazing and anyone who says they are boring or dull has

clearly never seen one in action. They are bundles of energy that move around and cover the ground at phenomenal speed and the guys that drive them are some of the best drivers in the world.

"But I also think rallying needs to be entertaining to a larger audience and the idea of a rear-drive 911 blaring away, covered in mud and sliding at silly angles will be great. We're not going to challenge for victories – a WRC car is way quicker than our car will ever be. But the FIA is concerned our old 911 might upset the apple cart hence the restrictor, but I'm sure after the first event they'll see we're not a threat and hopefully they will give us a bit more power."

Currently there is no class championship for the RGT to score points in, for 2014 any rounds the 997 RGT is entered in to it will contest the WRC category with the works teams, but in 2015 six rounds of the FIA World Rally Championship



Starting with a homologated 997 GT3 Cup built by Porsche Motorsport was a good starting place, especially when it came to the safety kit – although the roll-cage still had to be modified for greater side impact protection. Tuthill also had to find somewhere to store a spare wheel in a 997

will have an RGT class in which entrants will compete for points like the other four categories.

"I'd love to run six or ten cars next year if there are people out there who want to run in the WRC in a Porsche. Why not? There are people spending big budgets to run in the lower (slower) categories. I think RGT will appeal to some of these guys when they see and hear the car in action. And for us, when you've run 17 old 11s on the Safari rally, to do the same with a dozen modern cars on a modern WRC event with central servicing will be straightforward."

For 2014 the team, led by Graham Moore, without whom Richard wouldn't have embarked on the project if he wasn't on board, will have rebuilt the car on the German round of the WRC by the time you read this (turn back to page 18 to see how they got on), and unless something catastrophic happens the car will be entered on this year's Rally of GB in November.

That's right, this is no Tarmac special rally car, the intention is it will be able to compete on every surface and the idea of seeing a 911 covered in mud sliding around a Welsh forest is an endearing one, but Richard's ambitions don't stop there. "I'd love to drive the car on Rally GB, but if I can get someone in the car who can raise the profile of both it and the new category I'll step aside." Who would Richard step aside for? "Bjorn Waldegard, he was the last driver to win a round of the WRC for Porsche, and Walter (Rohrl) – wouldn't it be great to have him in the car? (Francois) Delecour is a fan favourite and has rallied a 996 a couple of times, so he'd be great to have in the car. Factory driver Timo Bernhard has his own 997 rally car he competes in Germany – he would be a good one to get in the car too. I wonder if VW would let (Sebastian) Ogier or (Jara-Matti) Latvala have a go? VW owns Porsche now, doesn't it?"

Discussing the project with Richard highlights not only his enthusiasm for this new challenge, but his deep rooted knowledge of the sport, not only how it works but what it needs to keep the interest and the profile at the very highest level. "We know we'll never challenge for an overall WRC win, but with the RGT championship there will be a goal to aim for in 2015 and I'm confident that will attract people to our project and maybe other marques too. I haven't worked out a budget to run a car in RGT round next year, but I'm confident it will be similar to running a Cup car in the Carrera Cup."

For the rest of 2014 the development process starts in earnest. All going well, you can don your bubble hat and head into the Welsh forests in November and enjoy the sound a flat-six howling through the woods accompanied by the sight of a filthy 911 sliding around in the mud. I can't wait ☺