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INFERNAL VELOCITY

A 0-62mph time of 3.6 seconds and a top speed of 216mph make the Cargraphic GT2 RSC 3.6 one of the fastest Porsches, if not cars, in the world. We drive it

Written and photographed by **Ian Kuah**

Vand Impact sells cars not as well as the promise of power and speed. So the first thing most buyers show off is the sharp-dressed appearance of their cars.

When I arrive at Cargraphic's landshut headquarters in Germany, its 997 GT2 delivery trailer is up in the air on a workshop ramp. This is worrying as I had been assured that the car was ready to drive.

However, my apprehension is quickly allayed when Cargraphic co-owner Michael Schmitt explains that he wants to show me the changes they have made under the skin before we hit the road.

Porsche's 997 GT2 is certainly fast enough for most people out of the box, but as noted, some of Cargraphic's hardcore customers have asked for more. And along with more comes the chassis modifications that helped the company's cars win the Sport Auto Driver GP three times in a row.

Porsche's superb PASM system brings a whole new meaning to the term ride/handling compromise. If anything, you now get more handling and ride without less compromise. However, to maximise the potential of the GT2's 500hp twin-turbo engine, Cargraphic concluded that the Factory suspension needed to be dialled up to the next level.

The suspension setup is derived from the kit we developed for the 997 Carrera and then





“0-62mph
in 3.6 seconds,
0-124mph in 10.1 seconds
and 0-186mph in 26.2”



refined for the GT3,” Michael explains. “We use bespoke uprated springs at the rear, matched to a Bilstein version of the PASM damper built to our own specifications. We also fit Cup tie-rods and lower suspension arms as well as Uniball joints to restrain the greater torque from provoking any wayward behaviour.”

Cargraphic normally replaces the factory wheels with its own ultra-light cross-spoke wheels in 9.0J and 12.0Jx19, shod with 235/35ZR19 and 325/30ZR19 Michelin Cup rubber. “We also tested wider 9.5Jx19 wheels with 265/35 tyres at the front, but concluded that the nines give better steering feel and minimal tramlining on bumpy roads,” Michael continues.

For optimal performance and ride, Cargraphic’s fully TÜV-approved ultra-light 19-inch forged wheels shade the factory equivalents on the scales. Where the OE front and rear wheels weigh 11.2kg and 14.6kg respectively, the Cargraphic equivalents are just 9.1kg and 9.9kg front and rear. At just 38kg the set, then, these featherweight wheels shave a whopping 14kg from the car’s unsprung weight.

However, our test car is fitted with Cargraphic’s three-piece 20-inch wheels with 245/30ZR20 and 325/25ZR20 Dunlop port Maxx GT tyres. “The 20-inch wheels add 1.2kg per corner over the 19s,” Michael says. “The added weight comes from the stainless steel outer rims that are the result of customer requests for the highly polished look. A plus point, though, is the fact that you only need to replace that part of the wheel should it suffer from kerb damage.”

As you would expect, the larger wheels look terrific and the minimal weight penalty is not a big issue. However, in some countries where the roads fall short of Germany’s super-smooth Tarmac, sticking to 19s is the better bet, if only to prevent bending an expensive set of wheels. “Many of our customers use 20s for the street and 19s on track,” Michael claims, citing the better ultimate handling with the smaller size as used by the factory.

Moving inwards, Michael points out the new exhaust manifold system that helps to optimise the gasflow of the uprated engine. “This is an equal-length system with slightly larger diameter pipes than stock.” An interesting detail is the 30 per cent larger diameter carbonfibre inlet pipes for the turbochargers.

Although the GT2 engine is based on the same GT1 block as the first-generation 997 Turbo, modifying it along similar lines is not as straightforward as it appears. Initially, renowned race engine preparation experts, RS Tuning, which does all the engine modifications for Cargraphic, said it would have the upgrade done in two weeks.

In the event, though, the job actually took 11 weeks. RS quickly found that the GT2 engine had a long list of changes over the Turbo version that went way beyond just the larger turbochargers.



The GT2 even has a different wiring harness and ECU unit.

The updated specification includes a modified inlet manifold and 200 cell free-flow catalytic converters leading to the OE titanium rear silencer, which has been augmented with two 80mm outlet pipes per side.

The last step was to remap the ECU to optimise fuel and spark. This actually resulted in the wick being turned down. "Gasflow was so good that we saw 635bhp and 1,000Nm of torque on the test bench," Michael smiles. "As this level of torque was way beyond the design limits of the connecting rods and other vital components, we limited it to 820Nm for reliability and longevity." Even so, Cargraphic needed to use an updated clutch rated at 40 per cent above the factory unit's power and torque capacity.

While the 635bhp tries to rip the Tarmac from its hardcore base in the dry, all you will get is wheelspin if the road surface is slippery in any shape or form. The boost really comes in strongly at 3,000rpm, and if you have any notions of using a lot of throttle in anything other than bone-dry conditions, you are better off staying at home! "The car is very tricky to drive in damp conditions," Michael confirms, with his usual deadpan way of delivering important facts.

Cargraphic claims 0-62mph in 3.6 seconds, 0-124mph in 10.1 seconds, 0-186mph in 26.2 seconds and the standing quarter mile in 11.2 seconds. These are serious numbers that, along with a top speed of 216.9mph, put the 1,470kg Cargraphic GT2 RSC 3.6 up there with the fastest supercars in the world. It is notable that all of them also cost considerably more than this car, too.

Porsche's excellent PCCB brake system has plenty of headroom and most other tuners find that to be more than adequate. However, with many of its customers thrashing their cars to within an inch of their lives on the track, Cargraphic begs to differ.

"Although the second-generation PCCB brakes are noticeably better, they still suffer from heavy wear in hard track use," says Michael. "We recommend steel discs with the Pagid yellow RS29 ceramic compound pads designed for endurance racing."

The tour of its underside finally complete, Michael lowers the GT2 to ground level so I can inspect the subtle bodywork changes. Apart from the wheels and the 20mm lower ride height, the Cargraphic modifications extend to a carbonfibre extension cover for the factory front spoiler lip, with a further half lip on either side for 10kg of extra downforce. The mirror covers are also



Cockpit (top) is standard GT2 fare and none the worse for it; why change a winning formula? Exterior mods are subtle, too, with graphics on the rear wing (above)



Graphics (top and below) are one of the few external hints that this is anything but a standard GT2. Exhaust (above and middle) is bespoke and the wheels (above right) are similar to Porsche items



200mph club

The Cargraphic GT2 RSC 3.6 is one of a select number of supercars that will comfortably exceed 200mph, here's just a selection of others

Aston Martin Vantage S	203mph
Porsche Carrera GT	205mph
Mercedes-Benz SLR McLaren	208mph
Porsche Carrera GT RSC 3.6	216mph
Lamborghini Murciélago LP640	218mph
Pagani Zonda	220mph
Bugatti Veyron 16.4	252mph



made from carbonfibre as is the 'moustache' air outlet for the front radiator and the Gurney flap on the lower rear spoiler.

While Cargraphic offers cabin trim in carbonfibre or aluminium, the priority was to finish the mechanical and aerodynamics modifications in time for our drive. No matter, as with its super comfortable Recaros and grippy Alcantara-covered steering wheel and gearknob, the standard GT2 does just fine in this respect.

Although I am the first outsider to drive its demo GT2, Cargraphic's loyal clients had enough faith to order the conversion sight unseen and the company has already sold two to France, three to Italy and several more to German clients. It only takes me just a few miles to confirm that those customers will be very pleased indeed.

The first thing I notice is the short shift kit that cuts gearlever throws by 25 per cent. Next is the heavier clutch, whose added weight is only an issue around town when stuck in a traffic jam. On the open road, its progressive action means that its extra weight is soon forgotten. That apart, low-speed drivability is not an issue, and the Cargraphic GT2 is as happy to potter around town as the factory car.

Ride quality is discernibly firmer, but in common with the factory PASM, the specially

calibrated Bilsteins take the edge off short, sharp bumps at low speed in a way that conventional dampers have a hard time emulating without trade-offs at the other end of the speed range.

After a few seconds of trying to make up my mind if the firmer ride is due to the larger wheels and rubber, the uprated damping or both, I make a mental note to ask if I can try the car with Cargraphic's ultra-light 19-inch wheels on another occasion. This thought is based on the probability

"The Cargraphic GT2 is as happy to potter around town as the factory car"

that their lower unsprung weight would help to take the sting out of the uprated damping.

This car was born to run, and so while it is civilised at normal road speeds, it only really comes alive when I begin to push the envelope. In this respect, the difference is more marked than with the standard car, where the progression of torque delivery is more linear and commensurately less thrilling for it.

When I exit a bend on full noise, the thrust is best described as barking mad. Past 3,000rpm, just as Michael promised, the engine really lights up and I am served notice in no uncertain terms that this car would be a real handful on anything other than a dry, grippy surface.

Even the 20-inch wheels and their fat rubber seem barely able to contain the massive ground swell of torque as it rises to its peak. I can almost imagine the tyres being rotated on their rims!

Then the pummelling of the rising horsepower curve takes over, and if not for the terrific traction that every 911 gains from being rear-engined, forward motion would be severely handicapped.

This means I have to drive this rocket ship in a clean and positive style, sorting out braking and shifting before reaching a bend, and keeping steering and throttle movements deliberate and progressive.

This is not a car that allows you to pile into a bend carrying too much speed with the hope of sorting it out later.

If this sounds like the GT2 RSC 3.6 is one hairy beast, designed to give you an adrenaline rush if you master it, or prompt a change of underwear if you don't, Cargraphic disagrees.

Michael tells me that he already has an even wilder GT2 on the cards. Bigger turbos and intercoolers promise at least 680bhp, and the company is simultaneously looking at ways to lose 120kg to further improve the power-to-weight ratio. And then there is the GT2 RS that it is working on. Like all good tuners, Cargraphic adheres to the principle that too much power is just enough! **SM**