

Exclusive design, best performance: the new Porsche 911 GT3 R rennsport

29/09/2023 Porsche will be presenting a spectacular circuit car for sports car enthusiasts and collectors at Rennsport Reunion 7 to be held at WeatherTech Raceway Laguna Seca.

The 911 GT3 R rennsport with a power output of up to 456 kW (620 PS) is based on the new 911 GT3 R of the current 992 generation. The limited-edition tracktool is the result of a design-oriented approach and benefits technically from the freedoms that go beyond motorsport regulations. The international Porsche meeting will take place on the Californian racing track from 28 September to 1 October. More than 80,000 visitors are expected to attend the four-day event.

One of the special features of this unique collector's item, which is limited to 77 units, is the distinctively designed body. The Porsche 911 GT3 R rennsport combines the powerful appearance of a high-performance competition car with modern design elements. At the same time, it hails back to the sports car manufacturer's motorsport history without drifting into a retro look. Elementary performance

factors of the original GT3 model, such as air resistance and aerodynamic downforce remain largely untouched. As a thoroughbred racing car, the form of the 911 GT3 R rennsport continues to follow function – but it does that in an extremely emotional and attractive way.

"The new Porsche 911 GT3 R rennsport offers the experience of driving a nine-eleven-based racing car in what is probably the most primal form," Thomas Laudenbach, Vice President Motorsport, emphasises. "It gives you goose bumps whenever you look at it and it combines the finest motorsport technology with a design language that is typical of Porsche. With its exceptional performance, the 911 GT3 R rennsport makes our brand's history both tangible and audible. It is only fitting that we will be presenting it to Porsche's large fan community at Rennsport Reunion 7 in Laguna Seca. This is an exclusive offer to our customers that really knows only one limit: the limited edition of 77 units."

This extraordinary sports car was designed by Grant Larson and Thorsten Klein from the Style Porsche team. "The 911 GT3 R rennsport will take its place as the logical successor to the modern Porsche 935. While the 935 was technically based on the near-standard 911 GT2 RS Clubsport, the 911 GT3 R rennsport uses the current 911 GT3 R of the 992 generation as its basis. Beneath the extensively redesigned carbon skin is a thoroughbred racing car," Larson emphasises. The American was Director Special Projects at Style Porsche for 14 years. Together with Thorsten Klein he is responsible for the individual, one-off vehicles of Porsche Exclusive Manufaktur. Thorsten Klein adds: "We have given the limited edition model a little more width and have visually stretched the length, while at the same time it sits very low on beautifully designed wheels. This gives it perfect proportions and makes it look even more spectacular."

Distinctive design with powerful charisma and a broad rear end

Generally speaking, only the bonnet and the roof were taken over from the standard GT3 R. All other body elements have been changed. Larson and his team have adopted most of the aerodynamically optimised geometry of the vehicle's nose, including its cooling air intakes and ducts. The designers have also set visual accents in the area around the side fins and flics. They are now framed by a side cowl and protected against damage caused by external impact. The radically modified shape of the air intake and outlet panels of the front wheel arches underscores the more self-confident appearance. Conventional exterior mirrors have been eliminated and replaced by a digital equivalent. A system consisting of three cameras integrated into the outer skin of the vehicle and monitors in the cockpit now perform this task.

Modifications to the racing car's rear end have a particularly distinctive character. The huge rear wing is the dominant component facing the airflow. Its design is reminiscent of that of the legendary Brumos Porsche 935/77, with which the American Peter Gregg, together with the Dutchman Toine Hezemans and the German Rolf Stommelen, took the seventh overall victory for a Porsche at the 24 Hours of Daytona in 1978.

The bold interpretation at the rear end develops a visual impact that is also reflected in the downforce numbers: to ensure that the load on the horizontal elements remains within the limits defined in the

standard, they have been provided with two additional vertical supports. In terms of their function, they are reminiscent of the Porsche 962 Le Mans racing car and thus bridge the gap between past and present. A light bar consisting of fine LED strips, which now incorporate illuminated letters of the Porsche lettering, characterise the overall wider rear section. One level lower, the largely open rear apron dispenses with grille covers and panelling for weight reasons. This provides a clear view of the technical components behind it and therefore also the exhaust system with its centrally positioned twin tailpipes.

The particular design claim of the 911 GT3 R rennsport is also reflected in the slightly modified interior. The monitors of the two fender-mounted exterior cameras blend harmoniously into the interior on each side. Special graphics for the splash screen of the central display and the limited edition number on the instrument panel have been given the shapes of the racing car, while ambient lighting adopts the theme of the colour-adjustable main headlights for the interior. All safety features comply with the applicable FIA standards. The particularly rigid roll cage design permits the installation of the driver's seat only. As is the case with the 911 GT3 R in use worldwide, the limited "rennsport" is thus a single-seater racing car.

With their striking look, the 18-inch wheel rims from BBS in their exclusive "racing" design are also an eye-catcher. They combine all the technical requirements that a competition wheel with central locking must meet, including a high design standard. Porsche Motorsport paints them in Dark Silver Metallic as standard.

New colour concept with extended customisation options

In terms of its colour concept, the 911 GT3 R rennsport is breaking new ground. Porsche is offering the new collector's item ex works with a bodyshell painted in Agate Grey Metallic and bodywork in pure carbon. The racing car will be available ex works for the first time in seven colours, including Star Ruby and Signal Orange, for example. In addition, there are three exclusive paintwork designs available that make further customisation possible. Thorsten Klein, Style Porsche Project Manager for the GT3 R rennsport: "Porsche has been shaped by its rich history. This is especially true in racing. This has subsequently inspired us, of course, but by no means did we want to produce a copy or an obvious retro paint job. The three options we selected are new interpretations that are realistic and not some blatant nod to the brand's history."

The "Rennsport Reunion Design" is based on traditional motorsport colours and launches a wave across the amazing contours of the exterior body surfaces. It flows in a way that is reminiscent of the legendary Corkscrew corner combination at Laguna Seca, the venue chosen for the world premiere of the 911 GT3 R rennsport. This tribute underscores the proportions of the vehicle and its rear wing, which is further accentuated by the still visible carbon surfaces. Together with a choice of optional paint schemes, they are generally covered with a semi-gloss clear coat. With its red and white colour scheme, the "Flacht Design" features the colours traditionally used by Porsche Motorsport. It plays visually with the flared fenders in particular. The term "Flacht" is dedicated to the district within the Porsche

Development Centre Weissach, where the motorsport department is located. The third option is the "Speed Icon Design". It is based on different shades of blue, which focus primarily on the pronounced width of the vehicle.

Even more powerful racing engine

In principle, the 911 GT3 R rennsport is based on Porsche's current GT3 racing car. Compared with the 911 GT3 R of the 992 generation, however, the limited edition model goes beyond the strict requirements of motorsport homologation or restrictions imposed by a "Balance of Performance" (BoP). The development team supporting Dr.-Ing. Andreas Singer has converted these additional freedoms into an even more emotional circuit car with numerous technical refinements. It combines more engine power with reduced weight and a spectacular design with an awesome sound similar to that of the 911 RSR. The result is probably the hottest track tool Porsche has ever made available as a collector's' item.

The 4.2-litre six-cylinder boxer engine of the 911 GT3 R, a power unit that revs up to 9,400 rpm, benefits in particular from the removal of the restrictions imposed by the regulations: it achieves a power peak of up to 456 kW (620 PS). This corresponds to a power output of as much as 148 hp per litre of displacement – most probably a record for a naturally aspirated engine of a GT racing car. It is thus significantly more powerful than the original power unit, which can develop up to 416 kW (565 PS) in the 911 GT3 R, depending on the BoP rating. The water-cooled four-valve engine with direct petrol injection has been designed to run on E25 fuels. These include bio-ethanol fuels and so-called reFuel, in addition to regeneratively produced e-fuels, which make almost carbon-neutral operation possible. With their lower knocking tendency, they are paving the way for more advanced ignition angles and increased compression in the six combustion chambers. The pistons and camshafts developed specifically for the GT3 R rennsport engine deliver increased performance, especially when running on E25 fuels. However, the engine can also run on conventional fuels.

The power transmission to the rear wheels, including the sequential six-speed constant-mesh gearbox, originates from the 911 GT3 R with only minor modifications. Gear changes are made via steering wheel paddles that control an electronic gearshift actuator. The transmission ratio of the fourth, fifth and sixth forward gears corresponds to the Daytona set-up of the GT3 racing car. In sixth gear, with an engine speed of 9,000 rpm, it gives the car a top speed that is around 20 kph higher than the shorter FIA homologated gear ratio of the GT3 R.

In the unsilenced version, the racing exhaust system with centrally positioned twin tailpipes offers an authentic and extremely emotional engine sound. Two quieter versions fitted with silencers and catalytic converters are available for racing circuits with noise restrictions.

The chassis is also basically identical to that of the GT3 racing car. At the front axle, a state-of-the-art double wishbone suspension layout is still used to perform wheel guidance with a multi-link suspension incorporated at the rear. The five-way adjustable racing shock absorbers from KW have a blow-off function. Porsche Motorsport delivers the 911 GT3 R rennsport with a specific basic set-up. Further

adjustments to the suspension can be made using shims. Their benefit: they enable fine adjustments to be made without the need for time-consuming measurements of the suspension.

Another unique selling point of the car are the racing tyres offered by Michelin exclusively for GT3 R rennsport customers. These tyres benefit from a new construction associated with a new compound tread that result in an improved warm-up and drivability compared to the Michelin Pilot Sport M S9 (S9M). In addition, the specially developed tyre design on the sidewall of the tyre blends in seamlessly with the appearance of the vehicle.

The aluminium monobloc racing brake system from AP has been given brake pads with titanium backing plates. They reduce the total unsprung masses by approximately one kilogram. The new FT3.5 safety tank with a capacity of 117 litres is also a weight-saving feature, being one kilogram lighter than the previous version and in future can also be used in the 911 GT3 R for racing events. Another weight saving feature is the elimination of the air conditioning system. Ventilation for the driver is provided by the 911 GT3 R's seat cooling concept. Overall, the developers are aiming to achieve a kerb weight of 1,240 kilograms for the 911 GT3 R rennsport. This would be equivalent to a weight-to-power ratio of 2.0 kg/PS.

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