

"Mister Le Mans" and the "Creative spirit"

05/11/2019 Porsche congratulates engineering legends Norbert Singer and Hans Mezger on their milestone birthday.

Porsche Profile. Event Story Lines.

This year two essential personalities — "a 'rock' within the Company" — celebrate their milestone birthdays: On 16 November 2019 Nobert Singer, the former racing engineer at Dr. Ing. h.c. F. Porsche AG, will celebrate his 80th birthday. During his time at Porsche between 1970 and 2004, Singer took part in every overall victory at Le Mans. Only two days later, on November 18, 2019, Hans Mezger turns 90. The legendary engineer for Dr. Ing. h.c. F. Porsche AG has been responsible for Porsche's most successful race cars and engines for more than three decades.

Norbert Singer - "Mister Le Mans"

For decades, there has hardly been any name more closely associated with the 24 Hours of Le Mans than that of Porsche racing engineer Norbert Singer. Norbert Singer played an instrumental role in all 16 overall victories won by both the works and customer teams at Le Mans with the racing sports cars of types 917, 935, 936, 956, 962 C, WSC Spyder and 911 GT1 98 between 1970 and 1998. Until his retirement in 2004, the qualified engineer was also project manager for most of Porsche's race cars. As Head of Works Sports and Operations, Singer was also responsible for strategic and tactical decisions during the races.

Norbert Singer was born on 16 November, 1939 in Eger in the Sudetenland, which is now the town of Cheb in the Czech Republic. In 1969, Norbert Singer completed his studies, graduating in both aerospace engineering and automotive engineering.

The crucial advice to dedicate his career to automotive engineering rather than aerospace engineering was given to Singer by an employee at the Institute for Automotive Engineering at the Technical University of Munich. Norbert Singer already had a great affinity for motorsports at this point. In March 1970, the young engineer join the Porsche racing department.

Singer's first responsibilities were on the Porsche 917. "Ferdinand Piëch rejected the idea of an external oil cooler. He demanded a simple solution. His aerodynamically solution worked at Le Mans. Not a single 917 had transmission cooling problems and the long-awaited first overall victory finally came with Hans Herrmann and Richard Attwood in the Sarthe.



In the period that followed, there was a great deal of aerodynamic development on the agenda for Norbert Singer with the 917. He was also involved in optimising the 917 long tail. The 917/10 and 917/30 with turbocharging, where downforce was the most important factor for the sharp-cornered tracks in the US, also benefited from Norbert Singer's aerodynamic expertise. In the 32 years that followed, Norbert Singer was responsible for a great many outstanding racing cars from Porsche: for example, the 911 Carrera RSR project (1972), the next stage of development in 1974 with the 911 Carrera RSR Turbo 2.1, the 935 (1976) as well as the famous 935/78 "Moby Dick" (1978).

Following numerous successes with the 935 and the 936, perhaps the greatest technical milestone in Norbert Singer's career came with the introduction of the Group C Regulations in 1982. In the development of the 956, he once again proved his tremendous expertise in the field of aerodynamics and provided the vehicle with an exceptional ground effect and thus extremely effective road holding characteristics thanks to a special underbody design with air ducts and the legendary "Singer dent". The 956 and 962 C won no fewer than five Drivers', three Makes' and two Team World Championships between 1982 and 1986. They also achieved seven overall victories at Le Mans.

In 2004, Norbert Singer retired but continued to work for several more years as an advisor for Porsche customer motorsport until 2010. And even after that, his expert knowledge still continued to be of great value. Especially when it came to restoring racing cars for the Porsche Museum, such as recently in the case of the first 917 with the chassis number 917 001 or the 956 with the chassis number 956 005. Norbert Singer has been giving lectures at the university in Esslingen since 2006.

Hans Mezger - Creative spirit

When a motorsport fan recalls a list of the outstanding designers of race cars and racing engines, not many names come up. However, one is always among them — and for many fans and experts his is the top name: Hans Mezger. Designer of the Porsche 911's air-cooled, six-cylinder boxer engine, overall designer of the 917 and its V12 with a 180-degree bank angle, and the arrangement of two connecting rods on one crankpin, as is typical of V engines, and also creator of the TAG Turbo Formula One engine, Hans Mezger and his portfolio of work have long since become legendary.

Hans Mezger was born on November 18, 1929 in Ottmarsheim, a small village near Ludwigsburg on the outskirts of Stuttgart. After graduating in 1956 Hans Mezger starts his career at the Zuffenhausen sports car manufacturer. Hans Mezger gained his first experience with the four camshaft engine Type 547, developed a formula for calculating cam profiles and became part of Porsche's first Formula 1 project in 1960. He was involved in the development of the 1.5-litre eight-cylinder Type 753 as well as the corresponding chassis of the 804. His career included designing the world-famous "Mezger engine" for the 901 and 911 in the early 1960s. In 1965 Mezger was promoted to head of the department for race car design initiated by Ferdinand Piëch. This department was the key to a new quality and dynamism in motorsport for Porsche.

Porsche also relied on this design principle for the development of the 917 in 1968. With the 917, the



first overall victory for Porsche at Le Mans was now finally possible, and once again Ferdinand Piëch relied on the skilfulness of Hans Mezger, who was responsible for the overall construction of the vehicle and its 12-cylinder engine. The 917 dominated at Le Mans and in the World Sportscar Championship in 1970 and 1971. In 1972 and 1973, and right from the start, the 917/10 and 917/30 showed good responsiveness even on the curvy stretches of the CanAm series, thanks to a novel exhaust turbocharging technology developed by Porsche itself. For the first time, turbocharging was successfully given a responsiveness that allowed racing cars and series-production vehicles to be used on all race tracks and public roads. A technology that makes Porsche a pioneer in this field and Mezger and his team brought to series production in 1974 in the form of the 911 Turbo.

But perhaps the most outstanding project took off in 1981 when Ron Dennis and his McLaren racing team set out in search of a powerful turbo engine for Formula 1. In the end, Porsche was chosen and the decision was made to design and build a completely new engine, as well as to provide on-site support during the races. Again, Hans Mezger was the creative mastermind behind the 1.5-litre, V6 engine with an 80-degree bank angle, which would later produce more than 1000 PS. In 1984, Niki Lauda became world champion with it, and again in 1985, followed in 1986 by Alain Prost. The TAG Turbo won a total of 25 races, plus the two Constructors' World Championships in 1984 and 1985. "This was a resounding success and also the most significant development contract for Porsche from an external company," adds Hans Mezger.

His commitment to Porsche has made him reject all offers from other manufacturers throughout his career and he still owns his 911 Carrera 3.0 in Grand Prix white – a coveted Porsche classic which has "his" engine.

Career and Highlights at Porsche. Hans Mezger.

1956–1960 Technical calculation department in the design department. Responsible for valve control of all engines, among other things.

1960–1962Move to the Porsche Formula 1 project team. Collaboration in engine and chassis design.

1963Design of the 901/911 six-cylinder engine.
Responsible for design and further development of all racing engines.

1965Design and project management of the Ollon-Villars Spyder.

Management of the newly established department for race car design.

1966–1970 Design of the 910, 907, 908, 917, 2-liter, four-cylinder engine for the 914 production sports car.

1971–1973 Can-Am race cars 917/10 and 917/30 with turbocharging.



1974–1976Design, development and further development of six-cylinder turbo engines and the Type 935 and 936 race cars.

1977–1978 Development of the water cooling and four-valve concept for the Type 935 and 936 six-cylinder turbo engines.

1977–1980 Design of the Twin Cam "Evolution" engine for Harley-Davidson. Development of the Indy engine based on the Type 935/936. Further development of the 935/936 race cars and engines.

1981–1982 Development of a 2.65-liter engine based on the 935/936 for Group C (956/962).

1981–1987Design, overall project management and further development of the "TAG-Turbo – made by Porsche" Formula 1 engine.

1987–1988 Design of the Type 2708 Indy car 2.65-liter engine.

1990 Design of the Type 3512 12-cylinder Formula 1 engine

Porsche China. WEC Leader Strives for Another Podium with New 911 RSR.

Porsche aims to defend its lead in the manufacturers' classification of the FIA World Endurance Championship (WEC) entering round three of the 2019 – 2020 season. The factory team takes on the four-hour race in Shanghai (China), scheduled for November 10, with two of the latest generation ca. 515 hp Porsche 911 RSR race cars. After clinching a one-two LMGTE-Pro class finish at the season-opening race at the Silverstone Circuit in Great Britain and a podium result at the second race at Fuji, Japan, the Porsche GT Team is now eager to perform well again at the circuit located on the outskirts of the Chinese commercial metropolis of Shanghai. In the LMGTE-Am class, three customer teams will field a total of six 2017-spec Porsche 911 RSR.

The 3.39-miles (5.451-kilometer)-long Shanghai International Circuit has regularly hosted the WEC over the years. Changing weather conditions in China's autumn often throws enormous challenges at teams and drivers. In addition, the modern facility offers a special feature. The first corner forms the shape of a snail shell, with the radius of the right-hander gradually tightening. This places considerable stresses on the left-hand-side tires. The track layout was inspired by the Chinese character "Shang" meaning "ascend". In the 2018 – 2019 season, the two works-Porsche 911 RSR yielded podium results in Shanghai.

Previous Silverstone winners Richard Lietz (Austria) and Gianmaria Bruni (Italy) share the cockpit of the No. 91 Porsche 911 RSR. The pair currently ranks third in the drivers' classification. Their works driver colleagues Michael Christensen (Denmark) and Kévin Estre (France) lead the category just two points



ahead. The reigning world sports car champions share the No. 92 Porsche 911 RSR. After the first two races of this season, Porsche leads the manufacturers' classification with a five-point advantage.

In the non-works Pro-Am style class, German customer squad Dempsey-Proton Racing fields three 2017-spec Porsche 911 RSR. Sharing the wheel of the No. 77 ca. 510 hp vehicle are Porsche Young Professional Matt Campbell (Australia), team owner Christian Ried (Germany) and the Italian Riccardo Pera. Porsche Young Professional Thomas Preining from Austria competes with others in the No. 88 sister car. This marks a guest appearance for the No. 78 vehicle. The same crew that contested the 24 Hours of Le Mans in June 2019 will helm the vehicle: the father-son team Louis and Philippe Prette (Italy) as well as Frenchman Vincent Abril.

Porsche Young Professional Matteo Cairoli (Italy) joins forces with Le Mans class winner Egidio Perfetti (Norway) and the David Heinemeier Hansson (Denmark) in the No. 56 Porsche 911 RSR fielded by the Team Project 1 customer squad. The Texan Ben Keating and two drivers from the Netherlands share the No. 57 car: Larry ten Voorde and Jeroen Bleekemolen. Gulf Racing's number 86 vehicle is manned by the all-British crew of Michael Wainwright, Ben Barker and Andrew Watson.

The new Porsche 911 RSR (2019 model year) contests its maiden season in the world sports car championship. The vehicle from Weissach, Germany produces approximately 515 hp depending on the air restrictor and is based on the high-performance 911 GT3 RS road-going sports car. Compared to its extremely successful predecessor model, the car for the LMGTE-Pro class received improvements to areas such as drivability, efficiency, ergonomics and serviceability. Approximately 95 percent of the car is new. The 911 RSR is powered by a 4.2-litre, six-cylinder boxer engine.

Fritz Enzinger, Vice President Motorsport.

"After winning the titles in the North American IMSA series, our works squads can now concentrate totally on the mission with the latest generation Porsche 911 RSR. The first two races of the FIA WEC season with the new car have already yielded great results with a one-two at Silverstone followed by the pole position and a podium finish at Fuji. It can continue like this. I'm confident that our experienced team and our top drivers will also get the best out of Shanghai."

Pascal Zurlinden, Director Factory Motorsport.

"We're leading the manufacturers' championship after two races and our Porsche pairings rank first and second in the drivers' classification. It's been a great season so far. However, we still have some tasks on our to-do list. We've already learned a great deal about the idiosyncrasies of our new Porsche 911 RSR. If we can continue to make systematic progress, then I'm sure we'll celebrate more successes. We want to finish on the podium at Shanghai – preferably at the very top. After our bad luck here in the past two years, I think we would deserve that."

Alexander Stehlig, Head of Operations FIA WEC.



"After the first and second-place finish at Silverstone and second-place in Fuji, our goal is clear: to extend our lead in the manufacturers' and drivers' classifications. Up to now we've been very pleased with our new Porsche 911 RSR's results. Nevertheless, there are still some areas where we can and must improve on. I'm certain that we'll succeed with this very soon, and I'm really looking forward to a successful outing in China."

Richard Lietz, Driver, No. 91 Porsche GT Team Porsche 911 RSR.

"Last year we finished on the podium, so we're returning to Shanghai with fond memories. Personally, I don't mind the changing weather conditions because it adds to the excitement. Our car underlined its very good potential during the first two races of the season, but we've not always been able to make full use of that potential. If we can make the most of the possibilities that the new Porsche 911 RSR offers then we can go for a top result in China."

Gianmaria Bruni, Driver, No. 91 Porsche GT Team Porsche 911 RSR.

"For me personally, the upcoming race holds a very special meaning. The Shanghai International Circuit is the only racetrack on the FIA WEC calendar where I've not yet won. At the previous round in Fuji, we weren't able to get the most out of the new Porsche 911 RSR. In China, we'd like to build on our Silverstone achievement and, if possible, bring home our second win of the season."

Kévin Estre, Driver, No. 92 Porsche GT Team Porsche 911 RSR.

"We still have a score to settle with this racetrack. In the past two years we were in the lead but ultimately we missed out on climbing to the top of the podium. In China, the weather often plays a crucial role. When it rains, it pours. In 2018, the race even had to be halted because of a thunderstorm. I hope we have dry conditions this year. Then we'll witness a great race in our fiercely contested GTE-Pro class."

Michael Christensen, Driver, No. 92 Porsche GT Team Porsche 911 RSR.

"It feels good to travel to the next race leading the drivers' classification. We're at the top because we made the most of the opportunities at the first two rounds of the season. We want to continue like this in Shanghai. The new Porsche 911 RSR has great potential. I'm sure that the track in China suits our car better than the Fuji circuit. The signs for another top result look promising."

Matteo Cairoli, Driver, No. 56 Team Project 1 Porsche 911 RSR.

"Shanghai is one of the toughest circuits on the calendar for me. In dry conditions the tire wear is enormous. What's more, the drivers and teams have to be perfectly in sync. At this season's first two races we didn't have that crucial bit of luck on our side. I can't wait to finally climb the podium for my Project 1 squad."



Matt Campbell, Driver, No. 77 Dempsey-Proton Racing Porsche 911 RSR.

"I'm really looking forward to the upcoming race. I associate Shanghai with really positive experiences, especially after our victory there last season. In 2018, we saw how much the weather can affect racing. The forecast for this race weekend shows that we have to be prepared for everything again this year. I'm positive that our Porsche 911 RSR can be at the very front regardless of the weather."

Encore. Encore. Porsche Customer Teams Use IMSA Sebring Event to Test.

Two Porsche customer race teams will take advantage of the IMSA Michelin Encore at Sebring on November 10 to turn competition laps outside of the heat of the championship season. Black Swan Racing will utilize the four-hour endurance race to reacquaint the Tim Papas (Boston, Massachusetts)-owned program with the IMSA WeatherTech SportsCar Championship. The longtime Porsche-entrant has not entered its 911 GT3 R in the GTD class since the Rolex 24 At Daytona in January 2019. He will share the No. 54 with Marc Miller (Grand Rapids, Michigan) and Spencer Pumpelly (Atlanta, Georgia). Wright Motorsports, which campaigned the full SRO GT World Challenge America championship with two Porsche 911 GT3 R this season, also makes its WeatherTech Championship return at Sebring International Raceway. While preparing multiple Porsche 911 GT3 Cup race cars in the IMSA Porsche GT3 Cup Challenge USA by Yokohama series, the John Wright-owned operation last competed in the WeatherTech Championship's GTD class in fall of 2018. Recently announced driver Ryan Hardwick (Atlanta, Georgia) will join a regular in Wright's Porsche GT3 Cup Challenge USA by Yokohama program, Max Root (San Diego, California), and Jan Heylen (Clearwater, Florida) in the No. 16 Porsche.

For the second consecutive year, the non-points paying event will be held on the 3.74-mile, 17-turn track to provide customer programs an opportunity to race without the faster, high-speed prototype and GTLM classes. The two-day event will offer teams and drivers multiple practice sessions on Friday, November 9 before qualifying and racing on Saturday, November 10. Series' regulations for the event prevent prototypes from either the DPi for LMP2 classes or the GTLM class factory machines – like the 2019 WeatherTech SportsCar Team Championship-winning Porsche GT Team and its 911 RSR – from entering. This allows the GT3-spec machines, including the Porsche 911 GT3 R, to contend for overall race victory for the only time.

The Michelin IMSA SportsCar Encore at Sebring can viewed live on IMSA.TV beginning at 12:05 p.m. ET, November 10.



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