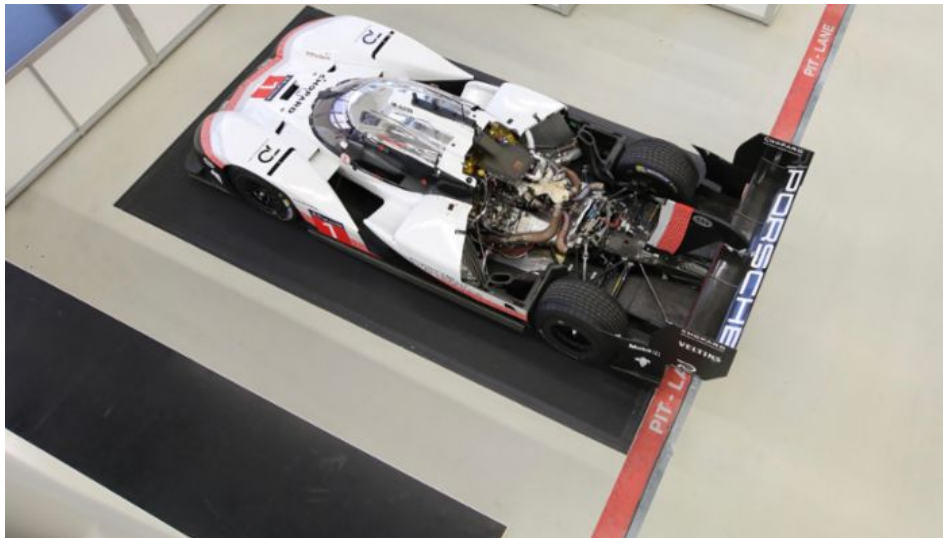


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Technical check: 919 Hybrid Evo

For the seventh episode of the Porsche Top 5 series, we visit the epicentre of Porsche Motorsport: Flacht near Weissach, where Steven Mitas, Technical Manager of the 919 Hybrid Project, and record-breaking drivers, Timo Bernhard and Neel Jani, explain the highlights of the 919 Hybrid Evo.



The Evo version of the 919 Hybrid is based on the Le Mans overall winner vehicle and WEC World Endurance Champion of 2015, 2016 and 2017. It was released from some rule restrictions and its hybrid powertrain produces a system power of 1160HP. The Evo weighs a mere 849 kilograms and its modified, now active, aerodynamics generate over 50 percent more drive than the WEC model. Top speed during its record-breaking outing at Nürburgring-Nordschleife was 369.4 km/h.

The latest episode of the Porsche Top 5 series presents the five most important features of the 919 Evo.



- Monocoque: composite fibre structure consisting of carbon fibre with a honeycomb aluminium core. The cockpit is closed.
- Combustion engine: V4 engine (90 degree cylinder bank angle), turbocharged, four valves per cylinder, DOHC, one Garrett turbocharger, direct petrol injection, fully load-bearing aluminium cylinder crankcase, dry sump lubrication
- Max. engine speed: 9,000/min
- Engine management: Bosch MS5
- Displacement: 2,000cm³ (V4 engine)
- Output: Combustion engine: 720HP, rear axle (< 500HP)
- MGU: 440HP, front axle (> 400HP)
- Hybrid system: KERS with a motor generator unit (MGU) mounted on the front axle; ERS for recuperation of energy from exhaust gases. Energy storage in a liquid-cooled lithium-ion battery with cells from A123 Systems
- Drive system: rear wheel drive, traction control (ASR), temporary all-wheel drive at the front axle via the electric motor when boosted, hydraulically operated sequential 7-speed racing gearbox
- Chassis: independent front and rear wheel suspension, pushrod layout with adjustable dampers and Pitch Link System with actively controlled lockout system (no actively controlled lockout system in the 919 WEC version)
- Brake system: 4-wheel brake-by-wire system (front-rear brake-by-wire system), monobloc alloy brake callipers, ventilated carbon fibre brake discs front and rear.
- Variable control of wheel torques to optimise the car balance (variable control of torque distribution front to rear)
- Wheels and tyres: forged magnesium wheel rims from BBS; Michelin radial tyres, front and rear: 310/710-18
- Weight: 849kg (888kg including driver ballast)
- Length: 5,078mm (4,650mm)
- Width: 1,900mm
- Height: 1,050mm
- Fuel tank capacity: 62.3 litres

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