

# 01 News from Porsche AG

## 918 Spyder prototypes commence trials Development of the Porsche super sports car enters next phase

**Power Test:** The testing phase of the 918 prototypes gets underway



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**The super sports car:** Its innovative operating strategy makes it fit for the future

The Porsche 918 Spyder is on the road: Dr. Ing. h.c. F. Porsche AG has taken the driving trials of the super sports car of the future a step further with completion of the initial prototypes. The 918 Spyder will go into production at the end of September 2013 as planned, with the first customers receiving their vehicles before 2013 is out. "What we are doing with the 918 Spyder is redefining driving fun, efficiency and performance," said Wolfgang Hatz, Member of the Executive Board Research and Development of Porsche AG.

The prototypes, their camouflage harking back to historical Porsche 917 racing cars, signal the final touches to the 918 Spyder. The focus is on the interplay between the highly sophisticated individual drive components. The combination of combustion engine and two independent electric motors – one on the front axle and one in the drive line, acting on the rear wheels – poses completely new demands on the development of the operating strategies. "They are therefore a critical component in this vehicle into which we

have put all of our expertise and capacity for innovation," said Wolfgang Hatz. These operating strategies and the development of the software to go with them are one of Porsche's core competences. Both of them have a major influence on the extreme driving fun to be had with the 918 Spyder and they make possible a unique combination of minimal fuel consumption and maximum performance. The initial results of the driving trials are in line with the high expectations placed on the 918 Spyder.

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**Tech-Talk:** Project Manager Dr. Frank-Steffen Walliser and Technology Board member Wolfgang Hatz, pictured here with the first test vehicle, which, in this case, was still fitted inside bodywork components from the Porsche 911

The super sports car is designed as a plug-in hybrid vehicle combining a high-performance combustion engine with cutting-edge electric motors for extraordinary performance: on the one hand, the dynamics of a racing machine boasting more than 770 hp, on the other hand, fuel consumption in the region of three litres per 100 kilometres. Moreover, Porsche is breaking yet more new ground with the technology demonstrator with spectacular solutions such as the full carbon fibre reinforced plastic (CFRP) monocoque with unit carrier, fully adaptive aerodynamics, adaptive rear-axle steering and the upward-venting “top pipes” exhaust system. In the process, the 918 Spyder is offering a glimpse of what Porsche Intelligent Performance may be capable of in future.

**Public relations and press  
Product press**

### Technical data Porsche 918 Spyder\*

**Bodywork:**

Two-seater Spyder; carbon fibre reinforced plastics (CFRP) monocoque, interlocked with CFRP unit carrier; two-piece Targa roof; fixed roll-over protection system.

**Drive:**

Parallel full hybrid; 4.6-litre V8 mid engine with dry-sump lubrication; hybrid module with electric motor and decoupler; electric motor with decoupler and gear unit on front axle; auto start-stop function, electrical system recuperation, four cooling circuits for engines, transmission and battery; thermal management.

**Power:**

> 570 hp (V8 engine)  
~ 90 kW (hybrid module on rear axle)  
~ 80 kW (electric motor on front axle)  
> 770 hp (combined)

**Maximum torque:**

> 750 Nm (combined)

**Maximum revs:**

9,000/min

**Power per litre:**

~ 125 hp/l (V8 engine)

**Power transmission:**

Combustion engine with hybrid module and transmission, linked together to form a drive unit, seven-speed dual clutch transmission, rear-wheel

drive, front electric motor with drive unit to drive the front wheels, five pre-selectable driving modes for overall propulsion

**Wheelbase:**

Double-wishbone front axle; optional electro-pneumatic lift system on front axle; electro-mechanical power steering; multi-link rear axle with adaptive electro-mechanical system for individual rear wheel steering; electronically controlled twin-sleeve gas pressure damper at the front and rear with Porsche Active Suspension Management (PASM)

**Brake system:**

High-performance hybrid braking system with adaptive recuperation; ceramic brake discs (PCCB)

**Energy supply:**

Lithium-ion battery with 6.8 kWh capacity (BOL nominal), 202 kW maximum power and mains-compatible plug-in charger

**Performance:**

Top speed: > 325 km/h, 200 mph  
Purely electric: > 150 km/h, 90 mph /h  
Acceleration: 0–100 km/h (0–60 mph) < 3.0 s  
Consumption (NEDC): Total ~ 3.0 l/100 km  
CO<sub>2</sub> emissions: total ~ 70 g/km  
Range: purely electric: > 25 km (15 miles)

\* Provisional figures