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Summary

The new 911 Speedster

The production version of the new Porsche 911 Speedster is here. For the first time in the company's history spanning more than 70 years, the open-top two-seater with a distinctive flat roofline is based on a GT model from the legendary 911 series. The new Speedster exudes the heart of Porsche's core brand values: purity, lightweight design, efficiency and unfiltered driving pleasure. It combines the high-revving 502 hp 4.0-liter naturally aspirated flat-six engine and the chassis from the 911 GT3 (991.2) with an athletic appearance characteristic of the forebear of all Porsche sports cars, the 356 "No. 1" Roadster from 1948. To underscore the significance of Porsche's founding year as a sports car manufacturer, the new 911 Speedster will be limited to 1,948 units worldwide. These will be manufactured at the headquarters in Zuffenhausen from mid-2019 — optionally available with the Heritage Design Package, another innovation from Porsche.

Design

Pure, lightweight sports car limited to 1,948 units based on the 991 series with two seats and shortened windshield frame. Weight-saving Speedster fabric top, carbon-fiber composite convertible top compartment lid with characteristic double-bubble streamliners. The optionally available Heritage Design Package is a modern interpretation of historic Speedster design elements from the 1950s and 1960s.

Powertrain

4.0-liter high-revving naturally aspirated GT boxer engine with six cylinders delivering 502 hp; maximum torque 346 lb.-ft.; modified intake with individual throttle bodies; lightweight exhaust system. Six-speed GT manual transmission with individually selectable auto-blip function.

Performance

With a weight-to-power ratio of 6.43 lbs. per hp, the lightweight 3,230 911 Speedster accelerates from zero to 60 mph in 3.8 seconds and reaches a top track speed of 192 mph.

Chassis

Based on the 911 GT3 (991.2) with rear-axle steering, dynamic engine mounts and the Porsche Active Suspension Management (PASM), Porsche Stability Management (PSM) and Porsche Torque Vectoring (PTV) control systems; Porsche ceramic composite brakes (PCCB) as standard; forged 20-inch center-lock alloy wheels.

Design and interior equipment

Purist and distinct character

Thanks to their unique exterior design, Speedster variants have always ranked among the most striking and desirable 911 models. With its 2 inch (50-millimeter) lower windshield, lightweight manual fabric top and streamliners on the rear decklid, the 2019 911 Speedster continues that tradition. They give this muscular sports car, which is based on the 911 Speedster concept vehicle from 2018, its extremely powerful and athletic appearance.

Numerous design elements that already characterized the concept vehicle can now be found in the same or similar design on the series production model. One particular highlight is the aesthetically shaped rear decklid. It is the largest and most complex component to date that Porsche has used in a production car. The single piece made of carbon-fiber composite weighs just 22 pounds (ten kilograms), including all associated parts. Its double-bubble streamliners have been quintessential design features ever since the first 911 Speedster was introduced in 1988. They contribute to the very sleek flyline of the car and also optimize the aerodynamics. Two special cut-out sections in the streamliners are designed for the supplemental roll-over protection system, which is standard equipment on the 911 Speedster just like in the 911 Carrera Cabriolet models.

A weight-saving roof construction replaces the basic tonneau cover of the Speedster concept vehicle. In spite of its purist design and lightweight construction, the manually operated fabric top is suitable for everyday use. Together with the shortened window frames with lowered cowl top panels and the smaller side windows, it gives the 911 Speedster its characteristic profile. The low fly line already characterized historic designs such as the Porsche 356 Speedster from 1954.

The manual fabric top takes very little effort to operate: the central locking hook at the top of the windshield frame and both the side fins of the fabric roof are released at the push of a button. The large rear decklid — made from lightweight carbon fiber composite — unlatches automatically. It is then positioned by hand and makes room for the fabric top. The cover can be closed effortlessly once the roof has been folded into position. The roof is closed again in the same way — only the roof fins on the left and right of the streamliners have to be pressed by hand into their holders until they catch.

Lightweight construction: focused on the essentials

A focus on lightweight construction also influences other body components of the Speedster. The carbon-fiber composite front luggage compartment lid, which weighs 4.4 pounds (two kilograms) less than the aluminum piece on the 911 GT3. The carbon-fiber composite front fenders originate from the 911 R. The front fascia made from special lightweight polyurethane with large cooling air fins has been adopted from the 911 GT3, while the black front spoiler lip is a completely new development. Instead of the Talbot mirrors used on the concept vehicle, the production version of the Speedster features electrically adjustable and heated Sport Design exterior mirrors. The automatically extending rear spoiler has been carried over to the Speedster from the 911 GT3 Touring. The lightweight rear fascia is fitted with additional vent openings with titanium-colored

grills; the two central tailpipes are made of black stainless steel.

The 911 Speedster features a black interior with leather elements and is optionally available with decorative red stitching for the side bolsters and head restraints of the standard Full Bucket Seats, the armrests in the door panels and the shortened gear shift lever. The seat centers are upholstered in perforated leather; the lightweight door panels feature black door pulls and storage nets. The Sport steering wheel measures 360 millimeters and features a center marking at the 12 o'clock position. "Speedster" logos adorn the head restraints and the visible carbon fiber door sill guards as well as the central tachometer. Like the other instruments, the tachometer has black dials with white needles as well as green digits and scales – features reminiscent of its famous forebear, the Porsche 356 Speedster. A badge on the cross structure behind the front seats shows the serial production number of the 911 Speedster, which is limited to just 1,948 units.

The 2019 911 Speedster is equipped with Porsche Communication Management as standard in the U.S., including online navigation, voice control and smartphone connectivity as well as the Connect Plus module, the Porsche Track Precision app and the 150-watt Sound Package Plus with eight speakers, integrated amplifier and digital signal processing.

Heritage Design Package

Personalized reminder of the Porsche's motorsport tradition and brand heritage

Based on the 991 generation, the new 911 Speedster is the first Porsche vehicle to be offered with the newly designed Heritage Design Package. Developed by Porsche Exclusive Manufaktur using the highest levels of craftsmanship, the Heritage Design Package links back to the roots of Porsche with numerous classic-inspired styling and design elements.

Exclusively available in conjunction with GT Silver Metallic paint, as a tribute to the golden days of motorsport, the front bumper and front fender "arrows" are painted in white. The "gumball" styled graphics in white on the front luggage compartment lid and the doors were inspired by historic Porsche 356 models, whose owners decorated them individually as they participated in races at the time. These areas can be fitted with individual start numbers via Porsche Tequipment, or the customer can order the vehicle without these stickers if desired. The historical "Porsche" decal along the sides of the car completes the classic-inspired exterior look of the vehicle, as well as the historic Porsche crest on the front luggage compartment lid.

The 20-inch center lock wheels of the 911 Speedster with Heritage Design Package are painted in Platinum Satin and can also be ordered in silver. Like the front luggage compartment lid, they are also decorated with a historic Porsche crest. The calipers of the standard PCCBs are painted in black and feature white "Porsche" lettering to suit the classic appearance of the package.

"Speedster" model designations in gold at the rear of the vehicle and on the sides of the characteristic streamliners further underscore the exclusivity of the Heritage Design Package.

The interior of the 911 Speedster with Heritage Design Package features a distinct classic look

with a two-tone leather interior in Black and Cognac. The standard Full Bucket Seats are upholstered in Cognac leather and decorated with a historic Porsche crest that is embossed in the headrest. The seat backs as well as the interior trim pieces are painted in the exterior color of the car, GT Silver Metallic. Cognac was also the color choice for the 12 o'clock center marker on the steering wheel as well as the center console lid, which features embossed "Porsche Exclusive Manufaktur" lettering. The raised "Speedster" model designation on the interior trim as well as the limited edition plaque located between the seats, both of which are featured in gold, represent further highlights of the Heritage Design Package.

Strong partnership: top performance meets finest craftsmanship

The cooperation between Porsche Motorsport and the Exclusive Manufaktur on the latest 911 Speedster started with the 911 Speedster concept vehicle and has historical roots because the two divisions have the same origins. Porsche Exclusive Manufaktur once fulfilled special requests for racing customers and performance enthusiasts, such as the legendary 935 "Street" with a flat front end. The last and in the eyes of many experts particularly successful joint project between Porsche Motorsport and the Porsche Exclusive Manufaktur was the Porsche 911 Turbo S Lightweight (964 generation) from 1992.

With the expansion of motor sports at the Weissach Development Center, the two divisions parted ways. As specialists for individual craftsmanship in the company, Porsche Exclusive Manufaktur concentrated with a passion for detail on individual customer requests and limited production runs, such as the 911 Sport Classic from 2009 or the 911 Speedster of the 997 series from 2010, of which only 356 were built. As a general rule, special requests are possible within the boundaries of the applicable legislation and while also ensuring that Porsche requirements relating to safety, quality and long service life are met. In recent years, there has been a particularly strong demand for personalizing GT models.

Engine and transmission

Naturally aspirated motorsport engine with significant enhancements for the Speedster

The heart of the new Speedster is the naturally aspirated six-cylinder boxer engine with four-liter displacement, adopted from the 2018 911 GT3. However, it was changed significantly for the 911 Speedster and represents the newest generation of this motorsport-derived power plant. Thanks to individual throttle bodies, and new lightweight exhaust system and higher fuel injection pressure (250 bar as opposed to 200 bar previously), peak power rises to 502 hp at 8,400 rpm. Like on the 911 GT3 and 911 GT3 RS, maximum engine speed remains at 9,000 rpm. The 911 Speedster engine delivers maximum torque – 346 lb.-ft. – at 6,250 rpm. Weighing just 3,230 lbs. with all operating fluids, the power-to-weight ratio comes in at an extremely sporty 6.43 lbs. per hp. As a result, the new 911 Speedster accelerates from zero to 60 mph in 3.8 seconds, covers the quarter mile from standstill in 11.9 seconds and reaches a top track speed of 192 mph.

Compared to the 2018 911 GT3, the engine in the Speedster is fitted with two gasoline particulate filters (not functional in U.S.) and complies with the emission standard Euro 6d TEMP-EVAP-

ISC. This is due to numerous improvements such as the high-pressure injectors, which operate with up to 250 bar injection pressure and an optimized spray pattern as well as a modified intake system with individual throttle bodies. This results in an even sharper throttle response. Another new feature is the ultra-modern thin-wall exhaust system: this high-tech component benefits from innovative brazing technology and weighs 22 pounds (ten kilograms) less thanks to integrated front silencers. With these significant weight savings at the crucial rear end of the car, this weight has a positive impact on the weight balance between the front and rear axles. At the same time, the exhaust system ensures lower emissions, sharpens the unmistakable engine sound and provides an unmistakable visual cue of performance with its lightweight twin tailpipes. Each tailpipe has a diameter of approximately 3.54 inches (90 millimeters).

The durability of the naturally aspirated 4.0-liter boxer engine is based on technologies that have been tried and tested by Porsche in endurance racing, where the same engine is used in the 911 Cup and GT3 R racecars. Like on the 2018 911 GT3 and 2019 911 GT3 RS, the rocker arms of the valves do without hydraulic valve clearance compensation. A fixed valve train with an adapted valve spring design – precisely adjusted to the engine speed and load by the VarioCam camshaft control – promotes durability even under grueling conditions. The oil supply of the six-cylinder engine is also based on endurance racing experience. The dry-sump lubrication system uses a total of seven suction stages, while the oil pump ensures the optimum oil pressure for every operating condition. Components subject to significant stress and loads such as the connecting rod bearings are lubricated directly from the oil pump via central oil supply into the crankshaft.

Transmission: 6-speed manual with automatic throttle blip

Complementing its purist character, Porsche only offers the 911 Speedster with a six-speed GT Sport manual transmission, offering maximum driver engagement a very emotional driving experience. Compared with the seven-speed Porsche dual-clutch transmission (PDK), the six-speed manual reduces the weight by approximately 37.4 lbs. and is a good 8.8 lbs. lighter than the seven-speed manual transmission in the 911 Carrera of the 991 series. The omission of seventh gear as well as of the centrifugal pendulum on the dual mass flywheel contribute to this reduction in weight.

The auto-blip function guarantees smooth and quick gear changes, particularly when downshifting. It compensates differences in engine speed using targeted throttle blips and reduces the influence of engine drag torque on stability to increase driving pleasure. The system can be activated or deactivated at any time via a button on the center console. A mechanical rear differential lock with asymmetric locking action promotes traction under acceleration and stability while cornering by distributing power more evenly between both rear wheels.

Chassis

Pure performance

The GT philosophy behind the new 911 Speedster is also reflected in its chassis. With sporty rear-axle steering and dynamic engine mounts, the chassis is based on the technology of the 911

GT3 (991.2) and 911 R. Control systems such as Porsche Torque Vectoring (PTV), Porsche Stability Management (PSM) and Porsche Active Suspension Management (PASM) with a calibration tailored to spirited driving as well as a 25-millimeter lower ride height compared to a standard 911 Carrera have been precisely adapted to suit the character of the car.

The open-top two-seater runs on forged 20-inch center lock alloy wheels with road-approved UHP tires. High-performance PCCB brakes (Porsche Ceramic Composite Brake) with internally vented and perforated ceramic composite brake rotors are also standard.

Together, these chassis components offer impressive performance with a high level of mechanical grip, outstanding steering precision and minimum body roll – the perfect conditions to guarantee unique driving pleasure on all types of roads.

Rear-axle steering: agility and stability in perfection

The rear-axle steering fitted as standard adds additional agility and stability to the driving characteristics of the 911 Speedster. This three-stage system works with electromechanical actuators, which allow rear wheel steering angles of up to 1.5 degrees. At speeds up to around 31 mph, the rear wheels steer in the opposite direction to the front axle. This virtually shortens the wheelbase and reduces the turning circle. At the same time, the Speedster responds more eagerly to steering commands. Between speeds of 31 and 50 mph, the rear-axle steering responds depending on the situation. At speeds above 50 mph, the rear wheels steer in the same direction as the front axle – the wheelbase is therefore virtually lengthened, thereby increasing driving stability, for example in a lane change at higher speeds.

Dynamic engine mounts: Motorsports technology for series production

Dynamic engine mounts, a technology inspired by motor racing, make a significant contribution to the dynamics and handling of the 911 Speedster. The electronically controlled system, which is also used on other GT models such as the 911 GT3, 911 GT3 RS and 911 GT2 RS, combines the benefits of both hard and soft engine mounting, thus increasing both the driving comfort and stability. For relaxed cruising, the softer setting of the dynamic engine mounts helps to absorb the oscillations and vibrations transferred from the drivetrain to the body, thus improving driving comfort. In contrast, hard engine mounting is particularly important for spirited driving as it reduces the mass movement of the engine-transmission unit.

For load changes or during hard cornering, it ensures more precise, predictable and perceptibly more stable handling when the vehicle is being driven in a spirited manner.

Furthermore, the dynamic mounts reduce the vertical engine oscillations at full acceleration. This enables more balanced and higher drive power at the rear axle, resulting in improved traction and faster acceleration.

Electronic control systems: high performance and safety

Porsche has precisely adapted the active chassis systems of the 911 Speedster to the special demands. The PASM variable damping control system with Speedster specific calibration allows the driver to choose between two driving modes. Normal mode is designed for driving on public roads, and offers the best compromise for changing road conditions and uneven surfaces. The Sport mode setup is designed to promote maximum lateral acceleration and best possible traction on smooth roads. The reduced car body movements significantly increase driving precision. Regardless of the mode selected, the 25-millimeter reduction in ride height lowers the center of gravity and underscores the athletic appearance.

The Porsche Stability Management (PSM) system is tuned for spirited driving in the 911 Speedster. PSM can be deactivated in two stages using the ESC OFF and ESC+TC OFF functions. In the first deactivation stage, "ESC OFF", stability control is deactivated to increase potential driving dynamics on closed courses. The longitudinal dynamics control functions tuned for spirited driving are retained in "ESC OFF" mode. In the second deactivation stage, "ESC+TC OFF", all driving dynamics control systems are deactivated.

Porsche Torque Vectoring Plus (PTV Plus) features a mechanical rear differential lock including asymmetrical locking action and targeted brake interventions on the rear wheels. This way, the system achieves high traction even on changing road surfaces, increases both the agility as well as driving stability for the 911 Speedster and supports steering precision.

Ceramic brakes: lighter, more powerful, greater durability and reduced wear

The 911 Speedster uses Porsche Ceramic Composite Brakes (PCCB) as standard. Compared to conventional grey cast iron components, their perforated ceramic composite brake discs are only around half the weight, significantly reducing the unsprung masses. They have a diameter of 410 millimeters on the front axle and 390 millimeters on the rear axle. The aluminum monobloc fixed caliper brakes painted in yellow have six pistons each at the front and four pistons each at the rear. Other benefits of PCCB: it combines higher brake performance with increased durability and resistance to wear.

History

The history of the Porsche Speedster models can be traced back to the U.S.

Speedster variants have been part of the Porsche company history since 1952. They combine open-top driving pleasure with outstanding driving dynamics. The forefather of all these models is the 356 1500 America Roadster. Its aluminum body was manufactured by hand at Erich Heuer Karosseriefabrik in Ullersricht near Weiden in Upper Palatinate, Germany. Thanks to its expensive lightweight body, it weighed approximately 350 pounds (160 kilograms) less than the 356 Coupe and its top speed of 112 mph (180 km/h) from its 70 HP four-cylinder boxer engine was impressive at the time. The exclusive sports car — developed for the U.S. market and built

only 16 times — already featured key elements of the Speedster design with slot-in windows for the doors, a folding rain-cover top and lightweight bucket seats.

It was the U.S. importer Max Hoffmann who convinced Porsche there was a market for their cars in America. He requested an inexpensive Porsche with reduced equipment costing less than 3,000 U.S. dollars. In the fall of 1954, Porsche produced a significantly less expensive version than the America Roadster, which included 'Speedster' in the model name for the first time and quickly caused a sensation in racing world. It combined the body of the Cabriolet with a raked windscreen, reduced interior equipment and a rain top. In the U.S., the 356 1500 Speedster cost just \$2,995 and became an instant hit in states such as California. Hollywood icon James Dean was also an enthusiastic racing driver and chose this purist model, which was dedicated solely to the sheer pleasure of driving. Further generations of the 356 Speedster followed. The model reached its peak in 1957 with the 356 A 1500 GS Carrera GT Speedster: Its 1.5-liter vertical shaft engine produced 110 HP. It was the first production model from Porsche to reach a top speed of 124 mph (200 km/h).

In 1988, a Speedster variant was introduced in the 911 series, as the crowning highlight of the outgoing G model generation. It was based on the 231 hp 911 Carrera featuring a wide Turbo body. It was optionally also available in certain export markets outside of Germany with a narrow body. 161 units based on the regular Carrera body were built. The windshield frame was shortened, and a manually operated rain top disappeared under a large plastic bubble painted in the vehicle color. Unlike the "911 Speedster Clubsport" concept car previously showcased at the IAA in Frankfurt in 1987, the first production Speedster was launched in 1988. A total of 2,103 G-series Speedsters were produced.

Between 1992 and 1993, 930 units of the "narrow-body" 911 Carrera Speedster of the 964 generation rolled off the production line. In addition, 15 vehicles were produced with wide Turbo body. The Speedster models of this generation were given a revamped soft-top mechanism designed to make the manual operation of the roof easier. The locking mechanism of the large fiberglass cover at the rear was also optimized. Leather lined, one-piece racing type bucket seats from the 911 Carrera RS painted in the vehicle color and special leather upholstery distinguished the 911 Speedster, which came without power locks, power mirrors, a radio or air-conditioning. The Speedster cost \$66,400 for the 1994 model year.

Even more rare is the 911 Carrera Speedster based on the 993 generation: there are exactly two of them in existence. The first was developed by the Exclusive department in 1995 for Ferdinand Alexander Porsche himself. It was green, came with 17-inch alloy wheels as well as a Tiptronic S transmission and was based on the Carrera body. Later, a second vehicle was built for the U.S American actor, Jerry Seinfeld. Seinfeld, himself an avid fan of the company and owner of an impressive collection of Porsche vehicles, received a silver Speedster with manual transmission and designed as a turbo wide 4S model with 18-inch wheels.

In 2010, the 2011 911 Speedster based on the 997.2 generation kicked off the 25-year anniversary celebrations of the Porsche Exclusive Manufaktur. Significantly different from other

members of the 911 family, this two-seat roadster was powered by a 408 hp version of the 911 Carrera S engine and featured a 2.36" (60 millimeters) lower, more raked windscreen and the characteristic speedster double-bubble hardcover for the manual soft top. Helping to define the striking profile of the 2011 911 Speedster, the 1.73" (44 millimeters) wide-body from the AWD 911 models made the rear-wheel-drive only Speedster stand out even more. The production run of this special car was limited to 356 units worldwide, with approximately 100 that headed to the U.S. the exterior color "Pure Blue" which had been developed exclusively for the Speedster, provided an intriguing contrast with the tinted front lights, black headlight rings, black windshield surround and other black decorative designs. Upon request, the Speedster was available in Carrara White, at no extra cost. It also featured a special front fascia, specific sideskirts and a distinct rear fascia. In the U.S., the 2011 911 Speedster cost \$204,000.

The 911 Speedster concept: a sporty and purist vehicle reflecting the brand core

In 2018, Porsche gave itself the best birthday present it could have possibly received: the 911 Speedster concept car - the road-ready study of an open-top and particularly exciting sports car - celebrated its world premiere on the "70 years of Porsche Sports Cars" anniversary in Zuffenhausen, Germany. The one-off vehicle shown in the Heritage version forged a link between the early years of the company founded by Professor Ferdinand Porsche in 1948, when the brand recorded its first successes in motor racing with the lightweight Speedster variants of the Porsche 356, through to the present day.

With its purist concept and historically accurate design, the 911 Speedster concept vehicle clearly reflects the brand core of Porsche because it stands for maximum driving pleasure. This two-seater Speedster is the first car in modern times to be based on a GT model and was developed by the brand's motor sports experts. The concept car made public appearances at the Goodwood Festival of Speed, the Rennsport Reunion VI in Laguna Seca, California as well as the Paris Motor Show. The dream has now become reality with the series production version.