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Opel Speedster – The Essence of Dynamic Driving

- Sporty, mid-engined two-seater demonstrates exemplary road-holding
- Lightweight design is the basis for excellent performance
- New-generation, aluminum, 2.2-Liter ECOTEC engine with 147 hp meets Euro 4

Rüsselsheim. Offering purists uncompromising driving excitement, the new Speedster is an Opel pioneer in several respects. The two-seater is the brand's first mid-engined sports car and the first Opel to use aluminum and composite materials for the chassis and body. The Speedster is built for driving enthusiasts who will consciously forego creature comforts for the sake of an uncompromised sports car experience. It covers the sprint from zero to 100 km/h in only 5.9 seconds, reaches a top speed of 220 km/h and demonstrates exemplary agility and road-holding on winding roads.

The philosophy behind the Speedster can best be described with the words, "minimal weight, high efficiency, maximum enjoyment". Intelligent, lightweight design complements a highly efficient new engine to give the Speedster its impressive performance. The aluminum, 2.2-liter, four-cylinder ECOTEC engine, which also powers the Astra Coupé, has 108 kW/147 hp, consumes 8.2 liters of premium fuel (MVEG norm) and already meets the Euro 4 emissions standard.

"The Speedster is not just another roadster," says Hans Demant, Executive Director of Opel's International Technical Development Center. "Our first priority with the Speedster has always been driving dynamics. The extremely low weight of 870 kilograms, a low center of gravity, the concentration of mass at the center of the vehicle, the racing suspension, the brakes and the unassisted steering, make it an absolute dream to drive on winding roads."

The Speedster's looks are as striking as its performance. Hans Seer, Director of Design at Opel: "The lightweight, composite body, is Opel's first production car to bring to

life the technically oriented design language we demonstrated on the G90 and Zafira Snowtrekker concepts.” The styling is characterized by taut surfaces, muscular wheel arches and sheer flanks. The sculpted, three-dimensional headlamps and tail lights are integral elements of the body shape. The large air intake ducts behind the doors are as striking as the two vertically arranged exhaust pipes. Hans Seer is confident that “the Speedster’s dynamic styling will leave its mark on automobile design at Opel and throughout the industry in the years ahead.”

Dimensions: Close-fitting, sports car proportions

The visible, aluminum chassis dominates the minimalist interior of the close-fitting two-seater. Instruments are kept to the bare essentials with a revolution counter and a speedometer, plus LCD displays for mileage and fuel level. Sculpted sports seats are complemented by a leather steering wheel, aluminum gear knob and a starter button, all of which underline the Speedster’s athletic personality. The optional leather interior is available in black, blue, red or beige.

Although the Opel Speedster’s dimensions make it very compact, its proportions are quite different from those of a typical small car. At 1112 millimeters, its roof is extremely low, an impression that is reinforced by the width of 1708 mm and the front and rear tread of 1450 and 1494 mm respectively. At 2330 millimeters the wheelbase is relatively long for a mid-engined sports car while the length, 3790 millimeters, is close to that of the new Opel Corsa. The Speedster’s trunk, located behind the engine, is larger than it looks from the outside with enough space (VDA method: 206 liters) for two people’s weekend luggage.

Combining a chassis made of bonded, extruded aluminum sections with a composite bodyshell made of bonded panels reinforced with glass fiber is a first for Opel. In this way the engineers achieved the extremely low vehicle weight of 870 kilograms while retaining excellent torsional rigidity and a high-quality finish. Apart from laying the foundations for a high level of active safety, this technology also provides excellent passive safety for the passengers. They are surrounded by the stable aluminum chassis while the driver airbag and pyrotechnical seat belt tensioners provide effective restraint. A

“crashbox” made of a stiff, lightweight synthetic structure, similar to the systems used in Formula 1 racing, is used to absorb impact energy in an extremely efficient manner.

Powertrain: Smooth-running, light and powerful

The drive-train, too, is characterized by the combination of low weight and high performance. The Speedster is powered by the first member of the all-new, aluminum ECOTEC engine generation, the 2.2-liter, four-cylinder unit which drove onto the European market in the Astra Coupé. The engine is made entirely of aluminum and weighs only 138 kilograms (DIN 70020A). In the Speedster the ECOTEC engine produces 108 kW/147 hp at 5800 rpm. Maximum torque is 203 Nm, 90 percent of which is already available at 1900 rpm. Opel’s new sports car consumes an average of 8.2 liters of premium fuel per 100 kilometers (MVEG) and complies with the coming Euro 4 emissions standard. Integrated into the engine block, two counter rotating balance shafts guarantee extremely smooth running. Maintenance is minimal: only the oil, the oil filter and the spark plugs have to be changed.

The transmission is the new five-speed gearbox first seen on the 1999 Vectra, with high-precision, cable-operated shift. Its three-shaft design makes the gearbox extremely compact.

The complex chassis employs a double wishbone suspension at all four wheels. Advanced geometry and compliance tuning optimizes wheel control to maximize grip and handling performance. The Speedster’s high-speed cornering capabilities are further enhanced by its wide track, its low center of gravity and precise steering. Four ventilated, 288-millimeter disc brakes provide powerful deceleration. ABS is standard. The Speedster’s 17-inch-diameter aluminum wheels (5.5” and 7.5” wide at the front and rear respectively) carry specially developed Bridgestone Potenza tires (175/55 at the front, 225/45 R17 at the rear).

A plaque on the instrument panel bears the production number of each Speedster, underlining the exclusivity of the two-seater sports car in the Opel line-up. Specialized dealerships will provide correspondingly high levels of service. Throughout Europe

about 800 dealerships have been appointed to sell and service the Speedster after first sending their sales and service staff on special training courses and preparing to stock Speedster parts.

The new sports car owes its origins to the concept of the Lotus Elise. The decision to cooperate with Lotus Engineering came at a time when Opel was preparing for the biggest model offensive in its 100 years of car-making. It was taken because the philosophy behind the English roadster is very much in line with Opel's own objectives, and because – after the Speedster concept car had been greeted with great enthusiasm at the 1999 Geneva Motor Show – Opel wanted to put the two-seater on the market as quickly as possible. The Speedster is assembled by Group Lotus in Hethel, England, about 150 kilometers north-east of London, where the renowned English sports car specialists and automotive consultants have been building cars since 1967. Opel quality assurance engineers work with their counterparts from Lotus to make sure that the company's guidelines and processes are applied to the production of the Speedster. In addition, cars undergo a pre-defined test drive on the race-track adjacent to the plant before being released to the customer. Opel's confidence in the quality of its new two-seater sports car is further underlined by a ten-year anti-perforation warranty.

Robert W. Hendry, Opel's Chairman and Managing Director calls the Speedster "the embodiment of pure driving excitement, a real driving machine with fascinating design and a focus on agile handling. It conveys just the kind of exhilaration that our customers can expect to feel more of in the future."