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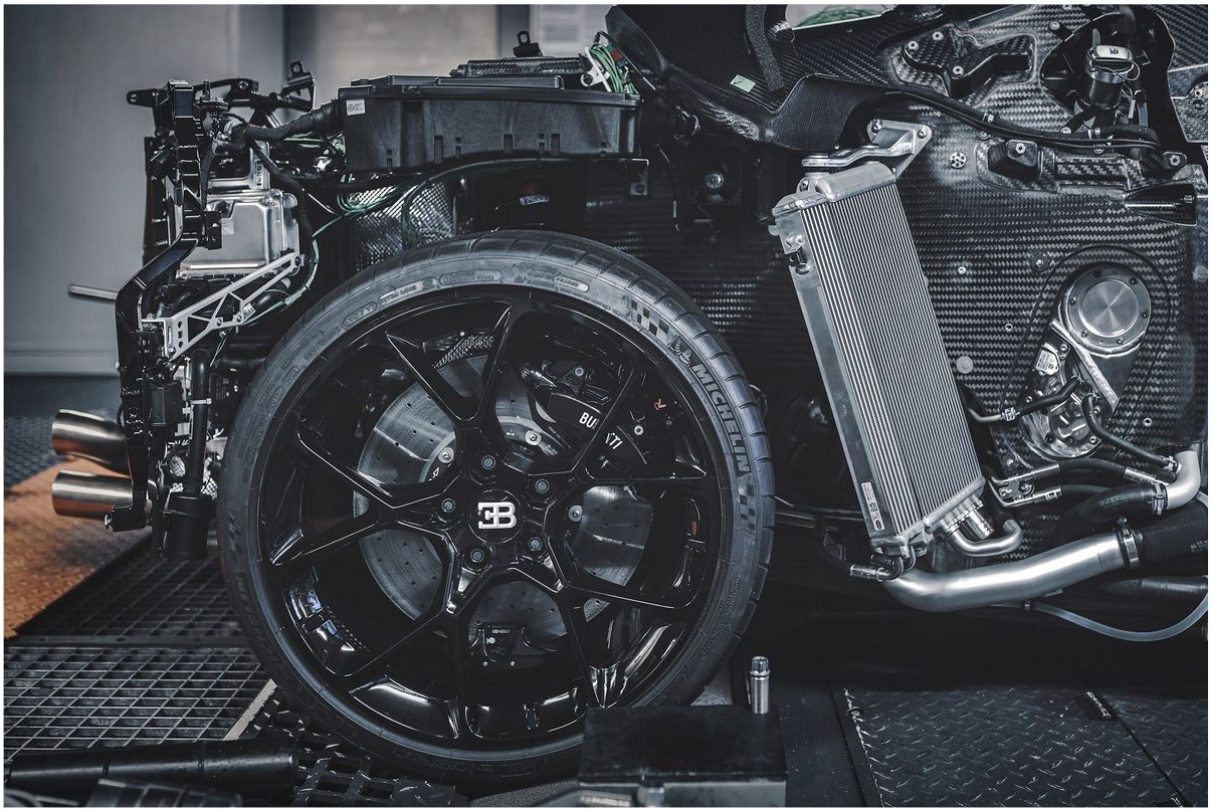
BUGATTI CENTODIECI — FIRST PROTOTYPE FOR SERIES DEVELOPMENT



The French luxury brand is paving the way for series production of its exclusive and unique hyper sports car.

Highly exclusive, distinctive and high-performance. At ''The Quail — A Motorsports Gathering'' in California in summer 2019, Bugatti presented another project reflecting its excellent coachbuilding expertise: the Centodieci[1]. The Centodieci evokes automotive history: the unique project is a tribute to the legendary EB 110. This few-of project comprises production of just ten vehicles for an exclusive clientele. The next phase is about to start for the hyper sports car with a W16 engine and 1,600 PS: the first prototype for series development is currently being assembled.
The design of the Centodieci with its flat front, low-slung front spoiler and three-part air intakes reinterpret the shape of the most famous super sports car of the 1990s. The EB 110 was

a key milestone on the road to the revival of the Bugatti brand in 1998 at Bugatti's historic headquarters in Molsheim, ultimately resulting in the first hyper sports car of the modern era — the Veyron.

The Centodieci is Bugatti's way of paying its respects to the Italian entrepreneur Romano Artioli and architect Giampaolo Benedini, the men who created the EB 110 some 30 years ago. ''The challenge for us was not to get caught up in the design of the legendary EB 110 itself and avoid focusing solely on a retrospective approach. Our aim was to create a modern interpretation of the shape and technology of that time: but at the same time, we didn't want to lose the charm and character of the EB 110. After all, the super sports car is still fascinating today with its distinctive design and technology,'' says Achim Anscheidt, Design Director at Bugatti. The biggest challenge: to transform the very flat, wedge-shaped and graphically virtually two-dimensional body of the EB 110 into a modern, three-dimensional sculpture to project the fascination of the super sports cars of that time into the modern age.

Since the world premiere of the Centodieci, the Bugatti development team has been working on the technical implementation of the strictly limited model. ''Every newly developed vehicle poses an immense challenge, as we are creating a very small series that at the same time has to meet and even exceed all the quality and safety standards of a large series,'' says André Kullig, technical project manager for one-off and few-of projects at Bugatti. The engineers first delve into calculations for the body, aerodynamics, engine and transmission. They simulate the airflow on the vehicle and check all components down to the smallest screw.

Meanwhile, the design team checks the styling in close collaboration with the developers before finalising this and designing the surfaces. They adjust the curvature of the components according to the incidence of light so that the appearance is homogeneous in all lighting conditions — an elaborate development process. After well over a year of design and simulation, the team has now developed the first prototype.

''I was hugely looking forward to the first prototype of the Centodieci,'' says Kullig, who has been with Bugatti since 2004 and was previously involved in projects such as the Divoand La VoitureNoire. ''Series development of a few-of project is an especially exciting challenge — and that is also true in the case of the Centodieci, which is a very design-driven project,'' says Andre Kullig. His task is to ensure a perfect match between the exterior shape and the technology. Despite only producing ten vehicles, the Centodieci must meet all the same technical requirements as a Chiron^2.

''With the newly designed body, there are changes in many areas that we had to simulate using special computer programmes. Based on the data, we were able to establish a basic set-up as a starting point for series development and the first prototype,'' explains André Kullig.

The team was recently able to successfully put the rolling chassis into operation on the site's own roller dynamometer in the Molsheim Atelier and check all the drivetrain functions —to ensure the Centodieci can move onto the next stage of development. The next step is now to build the elaborate exterior. ''With a high-performance hyper sports car like the Centodieci, it's a matter of filtering out subtleties based on the modified requirements of a completely new exterior — something that requires highly focused and intense development work,'' says André Kullig.

The technical challenges involved were enormous: an engine with eight litres of displacement and 1,600 PS generates high temperatures that require sophisticated thermal management. As

in the EB 110, the engine is seen behind a transparent glass surface. So to ensure more efficient engine thermodynamics, the Centodieci has a wide air outlet opening and modified air flows. In addition, guide flaps around the five circular air inserts — positioned in the form of a rhombus — ensure sufficient air intake for the 16-cylinder power unit. As a result, the otherwise dominant Bugatti line, the C-line, gives way to a new design. The rear is formed into a large ventilation outlet opening defined by the eight rear light elements. Other development challenges include the new light elements and the rear wing design, which is permanently mounted in the style of the EB 110 Super Sport.

But even if the development team can simulate and test so much data on the test rigs, the Centodieci will also undergo dynamic testing. ''In the next few months, in addition to building the exterior and running more advanced simulations in the wind tunnel, we're very much looking forward to going out on the test track to start tuning the chassis,'' says Kullig.

Within a few hours, all ten units of the Centodieci were sold out at a net price of eight million euros. The highly exclusive, hand-crafted small series will be delivered to customers next year.

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[1] Centodieci: WLTP fuel consumption, l/100 km: low phase 40.31 / medium phase 22.15 / high phase 17.89 / extra high phase 17.12 / combined 21.47; CO2 emissions combined, g / km: NA; efficiency class: G