

SILVERMINE 11SR

Silvermine presents the exterior design for the new 11SR, a track day dedicated racer. Classically sensual lines meet a very straight-forward and functional race chassis. Production of this new body is now taking shape.

Exterior design

Starting point for the design process was the already finished chassis built by engineer and maritime designer Frank van Rouendal. The exterior design was developed afterwards in a new phase of the project. This differs from a usual situation in which a product is designed as a whole within an integrated design process. The 11SR is the embodiment of Van Rouendal's racing and engineering dreams. The straight forward approach he used to create his light weight chassis, eventually also inspired the exterior design.

The brothers Marco and Andries van Overbeeke tailored the new exterior around the hard points the chassis provided them with, like a race suit protecting the internal parts whilst showcasing them. This creates a high contrast where the fast appearance of the body drapes on top of the hard core exposed chassis like a silk dress. Inspired by the great race car heritage of the 50's-70's, a design has come to life evoking echoes of a bygone era. As the new design evolved, these familiar lines were rediscovered and carefully penned down into a recognizable new blend. The result is a timeless design, a car that induces associations with highlights from the past. It is not intended as a retro design, but a deliberate search for where old meets new, where nostalgia meets contemporary engineering.

The design is clean with very few lines and contains a classic curved beltline, voluptuous wheel arches and classic surface treatment. The air ducts are kept simple and purely functional, no excessive design is applied. The form language of some elements are inspired by elementary fabrication techniques, like the front nose grill (milling aluminium), side skirts and rear diffuser (pressing and bending sheet metal).

At the rear, the exposed chassis frame shows its raw engineering and functionality. Underneath the tailgate, the engine bay is visible as is the gear lever mechanism and the adjustable rear suspension. The complete exhaust system is not even styled at all. The front suspension is visible through the wind shield which on itself is also part of the nose air duct outlet. Opening the front and rear hood, exposes the carefully crafted chassis with bolt-on sub frames and adjustable suspension with the one-of-a-kind up-rights.

The off-the-shelf headlights and the brackets on which they are mounted, are maintained as Van Rouendal has originally fabricated them. They are fully visible through the front light panel, providing also a peak into the car's front internals. The transparent engine cover exposes the longitudinally placed 325 hp Subaru 3.0 liter six-cylinder boxer engine. One of the most exquisite and remarkable pieces of engineering on the car is the exposed gearshift.

A car's body production takes shape

After finishing the exterior design of the 11SR body, a new phase has started: preparations for production, keeping the product true to the design, and fitting it all to the chassis.

To start with the second item, the 'plug-mould-product' production method was selected, in order to produce an exact 'copy' of the exterior design. Complex 5-axis milling of plug parts will be performed, resulting in a 100% file-based model. Multi-part moulds will be taken from the plug and joined together, to produce the complex exterior shape with no compromises regarding undercuts or mould release limitations.

Don't underestimate the number of jobs needed for the metamorphosis from design file into real product: Break down the body into logical parts for production; select materials, parts built-up and production

techniques; create tooling files, produce plug parts; produce moulds including joining flanges; produce body parts. Accompanied by checking, some more checking and checking again of all the details.

In the meantime, discussions take place with suppliers of the tooling, the plug and moulds and the body parts. This phase will most likely be taken up outside of Holland. An announcement revealing the selected companies will soon be made.

Then there's the challenge of designing and producing hinges, locks, brackets for things like headlights and gas springs, and "hard points" in the body parts to connect it all.

Last but not least, a scale model of the body will be produced, for evaluation of the body shape and study of production details.

Currently Silvermine concentrates on the development of the production of the body. No wonder that this all takes a little bit more time than originally foreseen. Silvermine now aims to get the first body parts ready in 2014, for assembly and finishing early 2015.

For more information about the Silvermine 11SR, visit www.silvermine.nl or send an e-mail to info@silvermine.nl. The web site also shows the actual development process and a (tentative) delivery specification of the 11SR.

For more information about Marco en Andries van Overbeeke, please visit marcovanoverbeeke.nl , behance.net/marcovanoverbeeke and behance.net/andriesvanoverbeeke