

O yachts Class 6 catamaran

Full disclosure; the O yachts Class 6 catamaran is a project that I inherited. Daniel Levy, first shared it with me in 2015. He and Laurent Bourgnon conceived of the layout and concept for the yacht. It's exterior in particular is, in my opinion, a singular vision. I would not have come up with this yacht on my own! What struck me first in the profile drawing was not the tall, reversed, bows, or the sweeping house lines, but the sailplan. Only the racing Ultimes and their kin, the Orma 60s and Imocas dared to place the rigs so far aft. It struck me as a bold choice. My mind jumped to *revolutionary* rigs, wishbone masts with only roller furling jibs and staysails. But this was an evolution *instead*. There was a reason for this choice, it was no simple experiment.

True to this heritage, the ocean eating racers, there was a central hull, too. This third hull is no vestige, not a nod to fashion or styling alone. It was clear this hull was a necessary ingredient for the mast position. It was its primary purpose, the structural needs of the yacht, in no small part because of the mast position. But Class 6 was a project interrupted by tragedy, that of Laurent's diving accident. I was approached at first as a structural composite engineer. Dan requested that Schickler Tagliapietra guide the project through the construction phase to the water. But as we got to know each other better, it became clear that there was still time for a few decisive improvements.

Based on the experience drawn from several successful racing monohull and performance multihull projects, Dan asked me to investigate the balance, both hydrostatic and sailing, of the yacht. This opened the door, just enough, to give the underwater body a bit of a remodeling. The goal was two-fold, static trim and low drag. Without radically affecting the topsides or styling, a series of hull shapes was simulated. We were able to deliver a new underwater shape in time to get it applied to the hull mould.

The hull shape, as well as the shape, position and angle of the appendages were brought into our scope of work. We utilized our in-house VPP to serve as the measure of merit. This performance assessment was therefore a by-product of our work on drag reduction.

Finally, the vessel could be drawn for construction, with painstaking attention put on the compliance with international standards, while keeping weight down. The composite engineering process was supported with simulation as well, this time with Finite Element Analysis of the central hull and wet deck. Sandwich composite structures, utilizing the superior properties of carbon fibre reinforcements, are used to create a stiff solid yacht.

To round out the Class 6, ST was asked to refine also the deck hardware layout and sail plan. These sail handling systems put an emphasis on functionality, on the simplicity and reliability of the system. It has come together as an integrated craft. Class 6 is something of which we are proud. It has been an honor to work with the yard, closely with Daniel, and ultimately see Laurent's vision through to the end.

Doug Schickler
Naval Architect

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