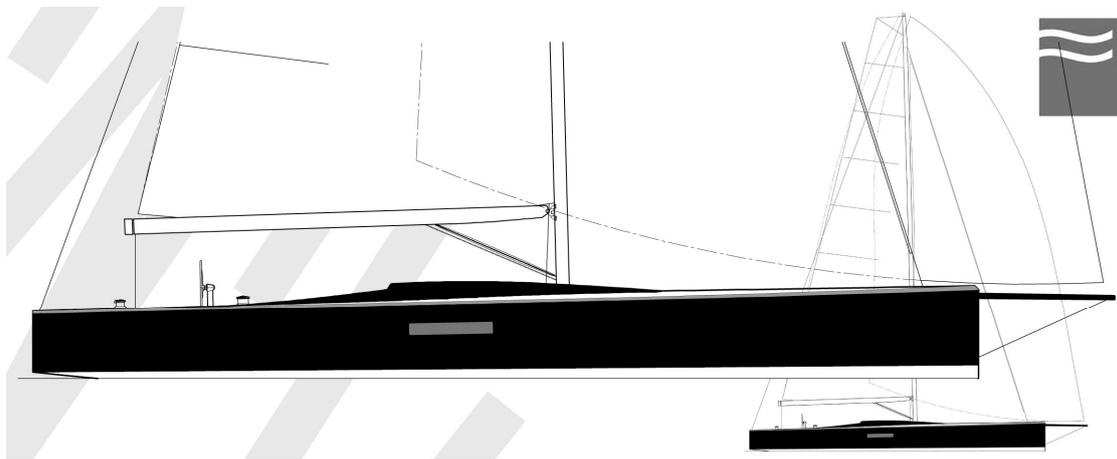


60' Racing Daysailer

This Racing Daysailer sketch is an exciting high performance blend of sophisticated daysailer and exotic raceboat. The design challenge is to meet two competing requirements: subjectively for an aesthetically arresting shorthanded daysailer capable of objective success in a challenging fleet like the IMA Mini-Maxi class.

We are confident that a complementary balance of parameters and features does exist to produce that result, and have sketched one potential starting point for such a design capable of being raced effectively as well as daysailed. A more complete proposal can only be developed in consultation with the client, we look forward to learning more about their requirements.

Design



A shorthanded daysailer needs to be stunning, quick, and easy to handle. There are a range of styling directions available, utilising different materials such as teak, glass, or composite surfaces, all the way to a sleek and simple flush deck layout. At this size there is sufficient interior volume to guarantee an open and inviting interior space, with the potential for limited accommodation if desired. The need to race a design like this with an expectation of success adds a need for a more powerful sailing mode as well as the ability to utilise additional crew effectively in handling the yacht. Once the clients needs are understood, the final balance between grace, handling, and performance can be defined through factors such as beam, draft, and sail area. In particular the benefits of powered sail handling and the ability to vary power by altering the draft and having two different sail plans offers a significant moding capability to help deliver on the different requirements.

The hull design builds on the work currently being performed for our latest Mini-Maxi design, an unprecedented R&D program building on the success and data from previous



projects. From our studies two hull shape families emerged with strengths in different condition sets, with the clients targets in mind our first step would be to identify the preferred family of hull shape and then begin the process of detailed refinement to ensure the fastest best-handling design possible.

To achieve the performance targets high tech engineering and construction has a significant role to play in delivering the lightest structure, the input of the engineer and yard will be pivotal in delivering the combination of style and performance desired.

Design Team

Mills Design Ltd. approaches all of its projects in the same way, dedicated to our focus on producing consistent 'whole' designs. This means that every aspect of a design has been considered and crafted to reflect its place in the whole. Whether that is ensuring the performance profile of the design matches the clients target conditions, or that the visual and tactile cues of the surface geometries and finishes achieve a unified design harmony.



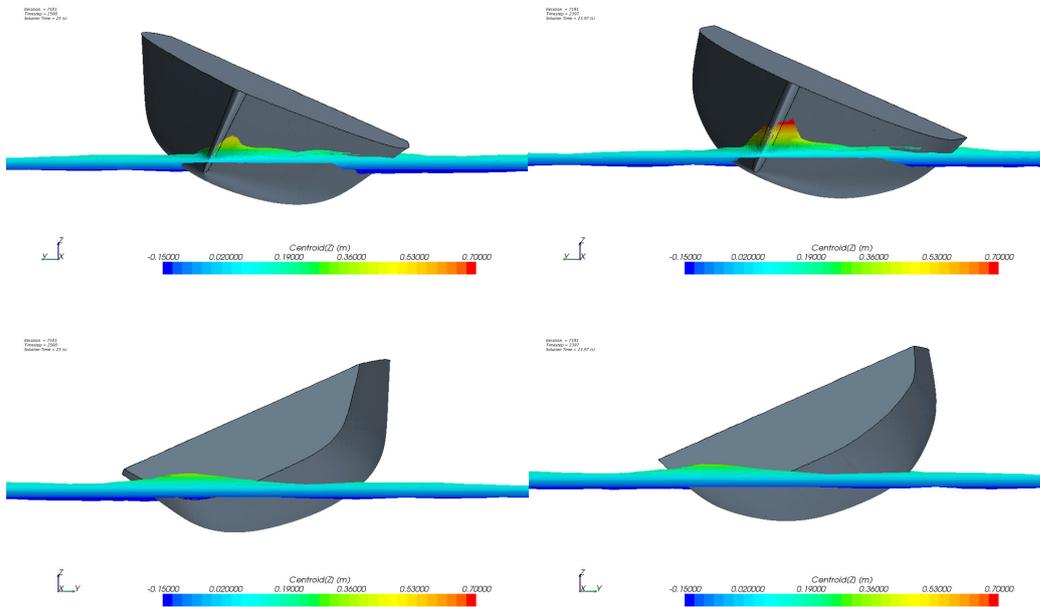
In a world of constantly developing technologies we believe as Yacht Designers we can best serve our clients by concentrating on the core issues of function, aesthetics, and speed. This allows us to benefit from the talents of leading specialists in constantly evolving fields such as research and engineering to ensure the client gets the best in every discipline. If an Interior Designer is desired the preference has to be that of the client, but we have links with offices such as Design Unlimited and RWD - Redman Whitely Dixon to help start that process.

Engineering high performance designs to meet the ISO regulations without any performance compromise is an exacting challenge. Our preferred Engineering Partners



for Grand Prix projects are U.S. firm SDK. Working directly with partner Steve Koopman SDK have engineered our Mini-Maxi projects, a class they dominate along with the TP52's. SDK shares our belief in remaining small and focused, which helps explain their successes at the highest level of competition to the America's Cup.

Most important for ultimate performance, and to help the owner reach that performance, is the R&D program. This Racing Daysailer is an excellent opportunity to show off our range of research techniques and tools, starting with CFD (Computational Fluid Dynamics). As CFD sophistication and complexity has grown we sought to establish a long term partnership with a specialist provider in order to focus on performance improvements in a larger context than any single project. This has led to our relationship with the European firm KND/Sailing Performance, including our latest Mini-Maxi and a number of research programs where their experience over multiple America's Cup, Volvo, and TP52 campaigns has made them an outstanding provider.



Beyond their CFD expertise KND/Sailing Performance have a number of unique capabilities: they are one of a very few outside organisations running the unique Das Boot/North Sails VPP , and they offer performance analysis services and software to leading campaigns such as Quantum Racing, Artemis, and Volvo winner Groupama to evaluate the logged on-the-water performance against the designs potential, closing the design loop in a very powerful way that is not possible elsewhere.

The power of this team and our focus on meeting the demands of the client ensures the final result will be an exceptionally beautiful, fast, and successful yacht. We look forward to discussing it in more detail.



Racing Daysailer Outline Specification**Type:**

60' Racing Daysailer

Dimensions:

LOA		18.300 (IMA Mini-Maxi minimum)
LWL		17.000
Beam		4.680
Draft		4.500
Draft - up option		3.500
Disp		11820
Ballast		7000
Wetted Surface		54
Hull Area		107
Deck Area		73
I		23500
J		6800
P		23500
E		8100
Jib		88
Main	race	115
Main	daysail	100
Spinnaker	race	360
Spinnaker	daysail	240

Construction

Carbon uni and biaxial fabrics.

Core: mixture of Corecell and Nomex (option of kevlar).

Fabricated steel fin lead/antimony bulb, lift option.

Diesel engine with lifting propulsion option.

Powered sail handling systems.

Carbon mast, boom, and sprit, option of composite rigging.

Engineering and construction to meet or exceed ISO.

