

# Tony Castro Ltd

**60' SIZZLER.**

**Design #289**

## **Introduction**

One does not often get approached to design a 18m custom daysailer yacht to sail on a lake!!. But that is exactly what happen here, in a beautiful lake called Couer d'Alene in Idaho USA.

From the outset this boat was going to be different. Both Mr. Hagadone and my good friend Richard Hein were very instrumental in defining the parameters for this design.

After numerous approaches to a variety of yards the owner realized that at his own Boat-Shop he had a range of very skilled craftsman used to built and repair Lake motor launches . The idea grew that we could build this yacht at the lake resort.

To make it easier we choose the material that his own people had experience with and that was wood – Good old fashioned wood with a little help from modern epoxy glues and a fair amount of Carbon Fiber reinforcements and individual parts, to try to keep the weight within reasonable limits, whilst retaining some traditional lake-boat-features like varnished topsides of course.

To help the building team interpreting the drawings from structural designers “High Modulus” and give technical advise we arranged for Giorgio Cecchinato to come and spend some time in Idaho , prizing him from the clutches of the America’s Cup Teams.

The purpose is to use it in the lake where you have sheltered waters, light winds up to 12Knots and a variety of gorgeous waterfront restaurants to go to..

The design does not follow any rules and the intention was to provide a comfortable, fast, stable mono-hull which could be easily sailed. In fact for most of the time nobody needs to be at the helm, not even when tacking, as it is automatically done with the help of some complex hydraulics from Cariboni.

The overall length of the hull was set at 60 feet. Through the combination of a plumb bow and careful stern overhang design, the optimal waterline length can be designed to maximize both upwind and downwind performance throughout the wind range. Beam is kept as narrow as possible commensurate with adequate stability.

This is an area where the designer can further optimize the design for certain conditions not to mention Immersed volume distribution and Prismatic Coefficient.. Minimum waterline beam would have the effect of reducing wetted surface and corresponding

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frictional resistance resulting in a design primarily dominant in light downwind conditions.

All these features were the subject of a VPP optimization with the help of Computational Fluid Analysis.

The design sports a lifting keel of reduced area and a huge bulb for a healthy ballast ratio, together with a high-aspect ratio rudder blade.

The deck design is dominated by the sofas where the guests will enjoy a pleasant sail. Forwards there is one entrance on Starboard , while the Port side is in fact a full on-deck bar unit, complete with ice-box, drinks dispenser. Down below there is additional galley facilities , pop-corn machine , etc.

On arrival at your destination life is made easy. A hydraulic multi-part passarelle stored under the deck will allow disembarking , and all the mooring ropes come out of the self winding reels under deck.

In the main, the gear is by Harken and Cariboni plus the customary sailing custom deck fittings by Lou Varney in the UK

The rig built by Southern Spars is a all-carbon affair supporting a jib and a sort of large Code"0" all by 3DL North Sails. Curiously there was no request for a downwind sail as such, although this could easily be added. Brookes and Gatehouse provides the Wind Instruments and Autopilots.

Although the Interior is very nicely finished in Carbon and a variety of materials we barely have headroom and no one will use it for overnight staying.

Hagadone Marine who build the first boat is ready to build some more...

This is a very unusual design, but I am pretty sure it will fulfill its purpose admirably and give everybody a great sail in uncompromising comfort. Pleasure all the way...

Tony Castro June 2006

### **Principal Dimensions**

LOA	18.25m
Bmax	4.25m
Draft	2.4m/3.4m
Displacment	18 Tonnes
Sail Area	265 Sqm

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