

SUI 8729 SPECIFICATION

BUILDER : DUVOISIN NAUTIQUE - SWITZERLAND



COLOR:

- Deck and upper water hull part: White
- Underwater hull part: Grey



HULL SPECIFICATION

Hull, deck, front bulkhead, transom, centerboard case completely made with honey comb, E-glass, Kevlar and Unidirectional Carbon fiber for the best possible stiffness/weight centering.

As we had a lot of extra weight ($>25\text{kg}$) to put in the boat to reach the rule specification, we have decided to enhance the case and cockpit stiffness by replacing foam by wood on certain places, by adding unidirectional carbon in the cockpit and by adding e-glass on the tanks, preventing efficiently damage induced by the hook of the trapeze harness, for example.



COCKPIT DESIGN

The cockpit design is done in such a way to enhance as much as possible the centerboard case and the lateral hull stiffness. Fitting has been design in order to allow the best lateral movements for the crew.



MAST, BOOM AND POLE

Masts

- 1 M2 Superspar (race mast)
- 1 Proctor D (spare)

BOOM

- Proctor Boom

Spinnaker Pole

- Blue Superspar Pole

CENTREBOARD AND RUDDER

Centreboard:

- High Aspect Ratio Duvoisin 2005

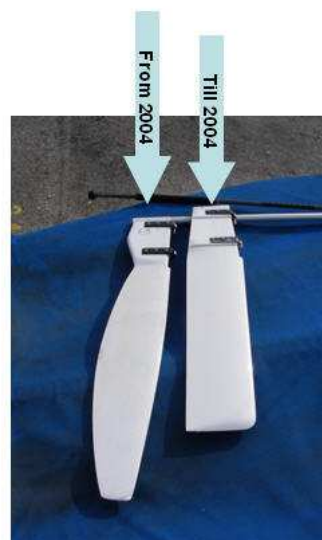
Rudder

- High Aspect Ratio Duvoisin

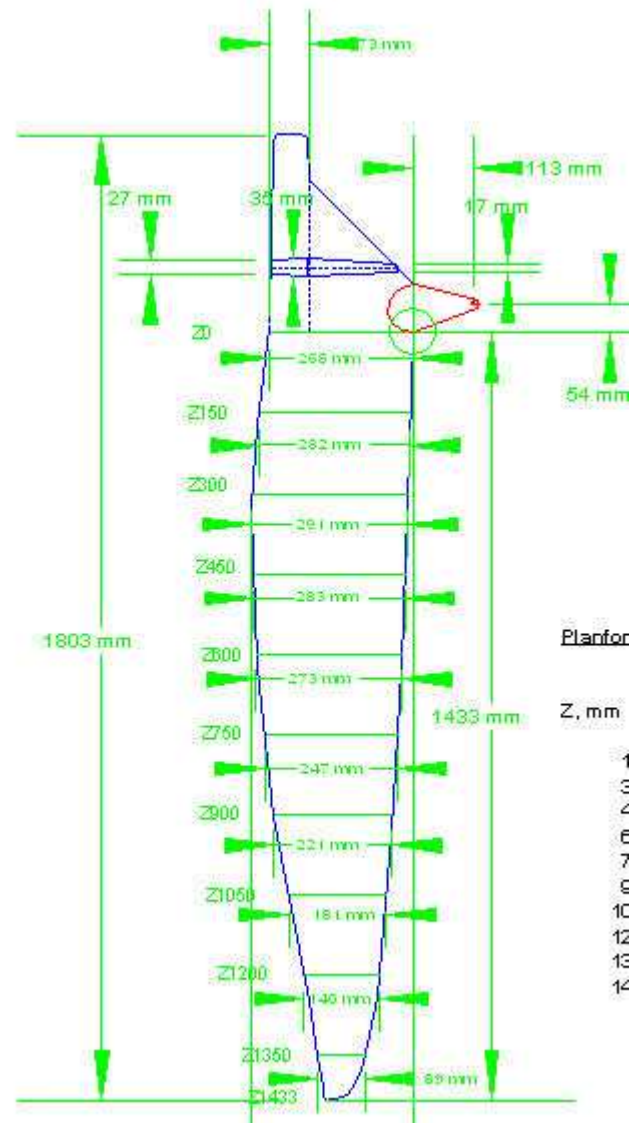
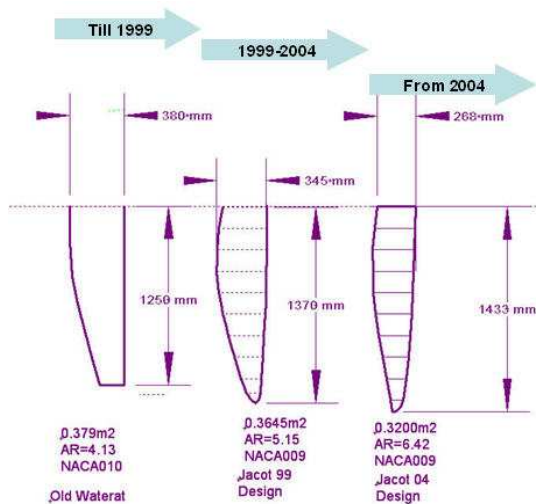


The centerboard and rudder are full carbon high aspect ratio foils fabricated from female moulds done by a CNC 5-Axis milling machine, i.e. insuring perfect profiles. They are in the line of the latest development in this area.

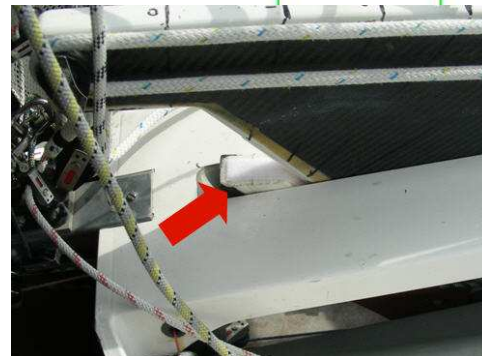
The centreboard has an Aspect Ratio of 6.42 and an area of 0.32 m² (496 inch²). The rudder is in the highest aspect ratio as well. Next picture show comparison with old version of rudders



The following figure shows the evolution of centerboards at Duvoisin and the design of the centerboard that is in the boat



The gicing angle of the centerboard is 3° . There is in the centerboard case a special device that allow to block the board and avoid the gicing, at any angle of the board



CONTROL SYSTEMS

The fitting is Harken for the high load jobs Ronstan for the rest of the functions. Here is a list of the functions and their respective power

- Forestay control: 24:1
- Shroud control: 60:1
- Mast Ram Down: 18:1
- Mast Ram Up: Hooked to Spi Halyard 2:1
- Mast Ram for pre-bend: Pin
- Boom Vang: 24:1
- Cunningham: 3:1
- Outhaul (on boom): 3:1
- Lateral Jib Control 2:1
- Vertical Jib Control 2:1
- Spinnaker Pole Control 1:1
- Centreboard up: 4:1
- Centreboard down: 2:1
- Automatic Spinnaker Barber Haulers: 6:1
- Trapeze wire control down/up wind: 2:1
- Mainsail Reef control: 6:1
- Mainsail Halyard: 2:1

Remarks

- Forestay cable is hooked on the mast with a T part, reducing mast compression
- Mainsail Halyard is decomposed with a 2:1 system allowing to reduce mast compression
- Mast ram up is connected to the spinnaker halyard, allowing to automatically prevent mast inversion when the spinnaker is up
- Forestay/shrouds controls enable to change rake in a very large range (7.90m down to 7.50m)
- Forestay position at deck level has been pushed forward by 5cm to adapt the high aspect ratio board

CONTROL SYSTEMS DETAILS

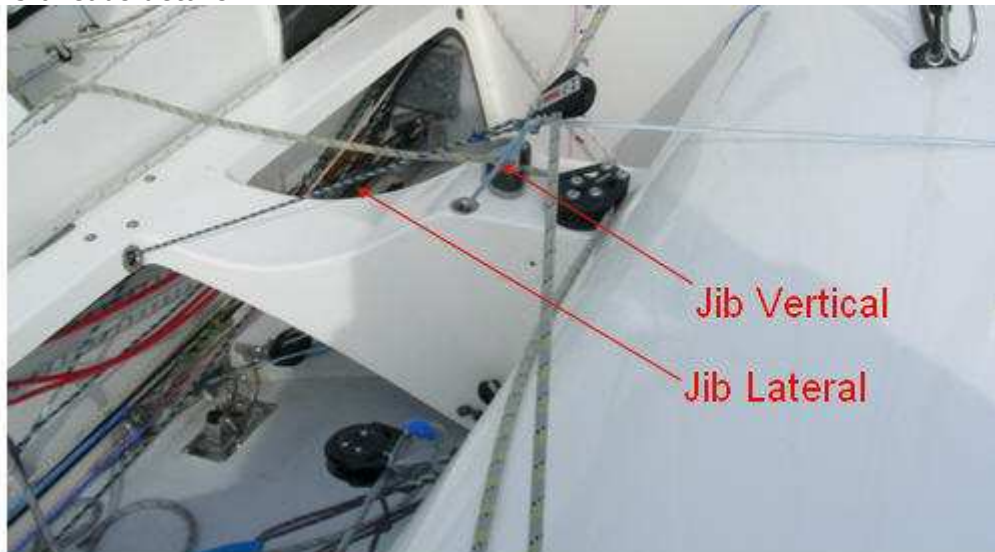
- Automatic Spinnaker Barber haulers system



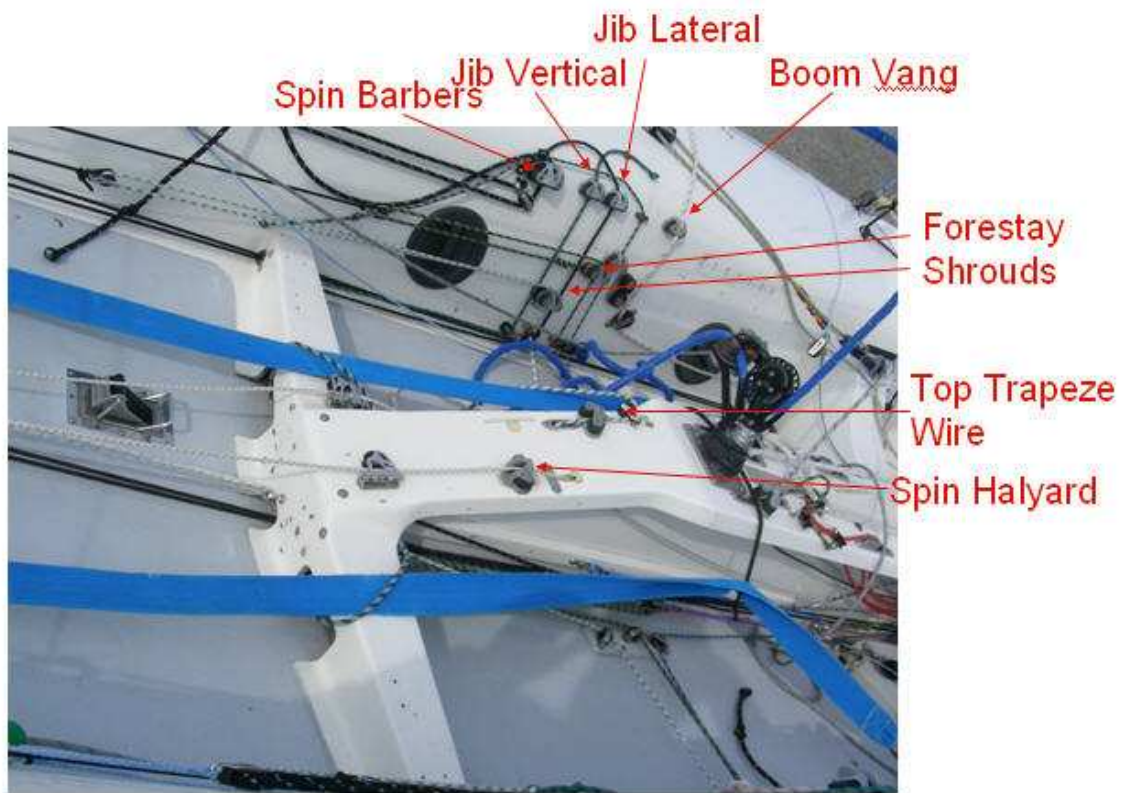
- Mast ram details



- Jib leads details



- CB case and tank details



- Forestay at deck level and launcher details



SAILS

- Mainsail: 2x Bojsen-Möller
- Jib: 2x Bojsen-Möller
- Spinnaker: 1x Glaser Max, 1x Pinnel Max

COVERS

Up and down covers