Maxspar srl

Presentation Furling Boom

Settember 2011

The Maxspar has studied and created a new generation of Carbon boom furling, electric motors, to wrapped inside the batten mainsail boom.

Philosophy Building

The main purpose of the boom furling is to simplify and speed (from 60/120 sec) reefing on boats using sail batten mainsail roach with 10 to 15%.

A single person must be able to wrap the mainsail commanding Simultaneously electric main halyard winch and buttons through the engine of the boom furling simplifying most of this operation is unable to wrap large mainsail size alone in a time ranging from 60 to 100 sec.

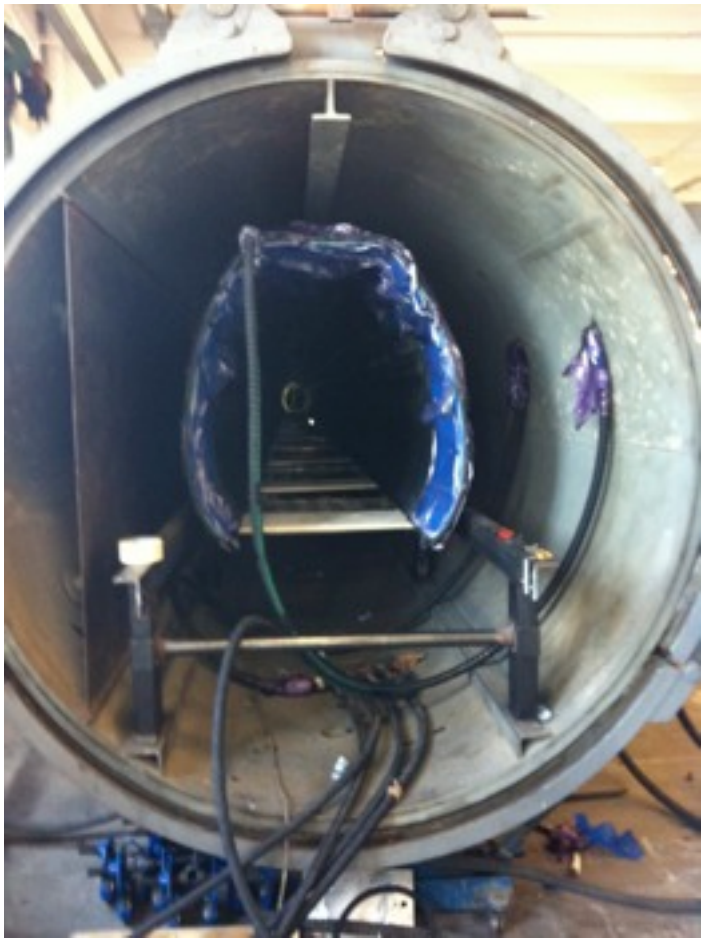
We have created a boom in carbon prepreg
sandwich core is consistent with very light
boom length, using the technical characteristics of material we have created a boom of 11 meters, weight 130 kg.

All of these simple concepts:
-speed winding
-field for a single person in the maneuver
lightness of the boom-and high resistance of the
manufactured
-efficiency of a sail batten
-positioning of the motor inside the tube
winder shaft side

I have produced high performance boom furling.

Technical data

The boom is constructed of carbon fiber prepreg and sandwiches coracel laminated on a male mold.
Cured in an autoclave at 3 bar and at 120 °.



With particular geometry this technology has obtained rigidity of the boom with a maximum weight of 40% in less than an Aluminum boom with the same characteristics.

Inside the boom and there 'a spindle that allows carbon to wrap the sail by an electric motor Bamar BFBME.

The electric motor transmits motion to the spindle and envelops sailing.

The system of discounts and 'consists of two very powerful reduction gears and a brake that enables the rotation when the engine is stopped.

The reduction ratio is 1 / 300 with an engine from 1500 watts to 24 volts.

The motor is controlled by an electronic box that Boxtron check:

-absorption and the overloads
(in case of increased absorption system goes into
protection playing and turn off the power for 20 seconds.)
-temperature
-speed winding

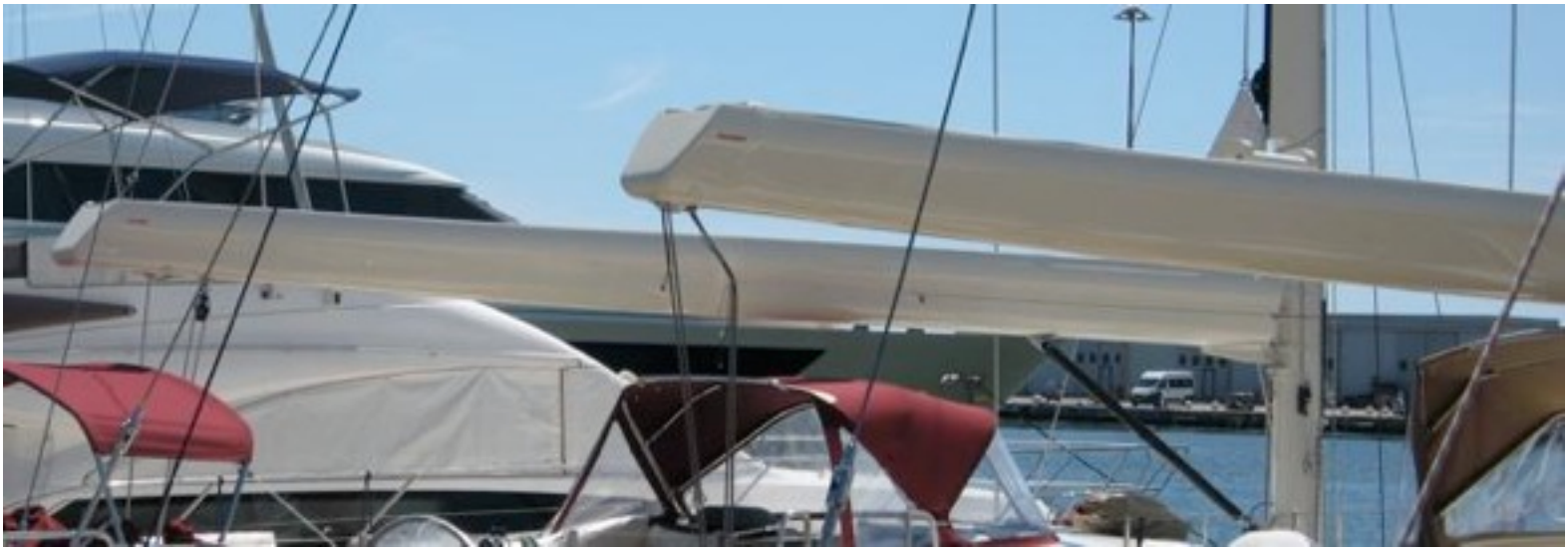
All these parameters are variable via potentiometers or numerical combinations and allow to find the right adjustment of the engine. (consult manual boxtron)

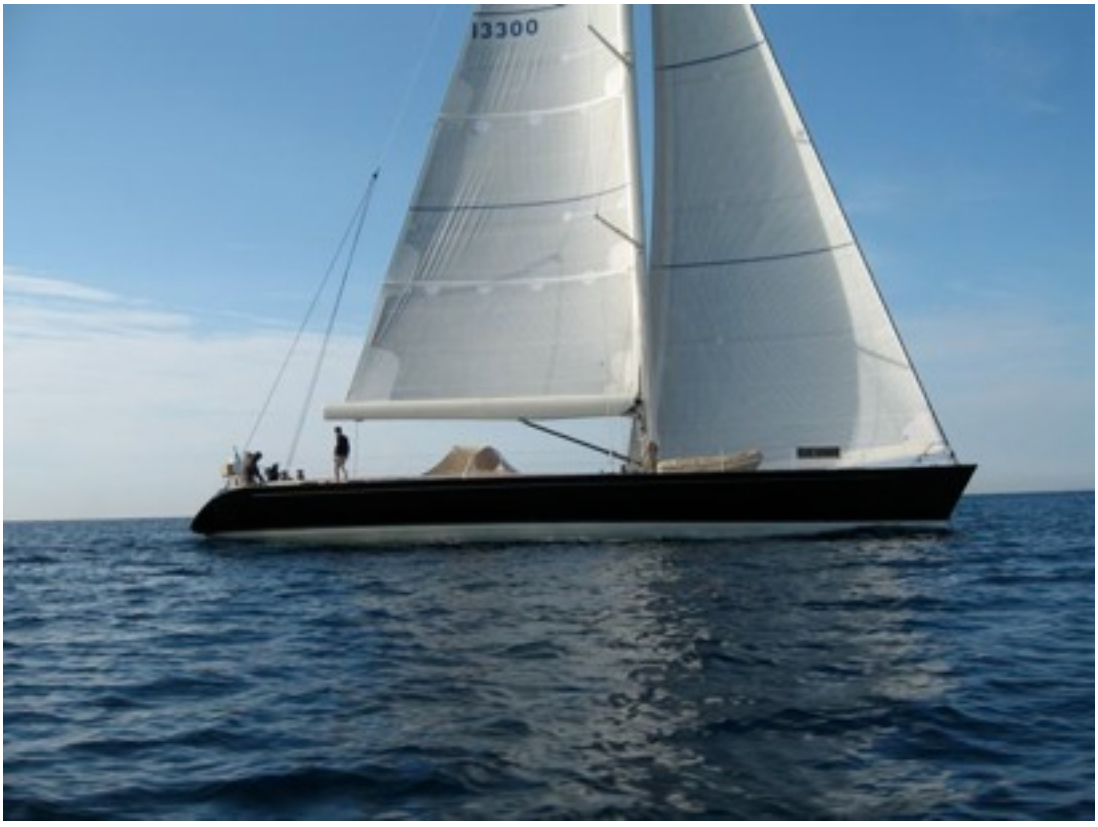
The winding speed is 15 revolutions per minute:
as a mainsail P = 26metri (luff tree) are wrapped in 120 seconds.

Boom furling has to be used correctly
need a hydraulic vang that controls the tilt.

Some boats where was mounted our system of boom furling:

-50 mt-Trip No. 2 boats under costruction
-Cat 100 one design
-Maya-32 mt
-S & S 102 under costruction
-Este 94 under costruction
-Wally 83 '
-Vallicelli-75 '
-Star 73 'No. 2 boat
-Felci-71 'No. 2 boat
-Star 64 'No. 2 boat
-651-Swan
-Sciarelli-62.5 '
-One-Solaris 48 '

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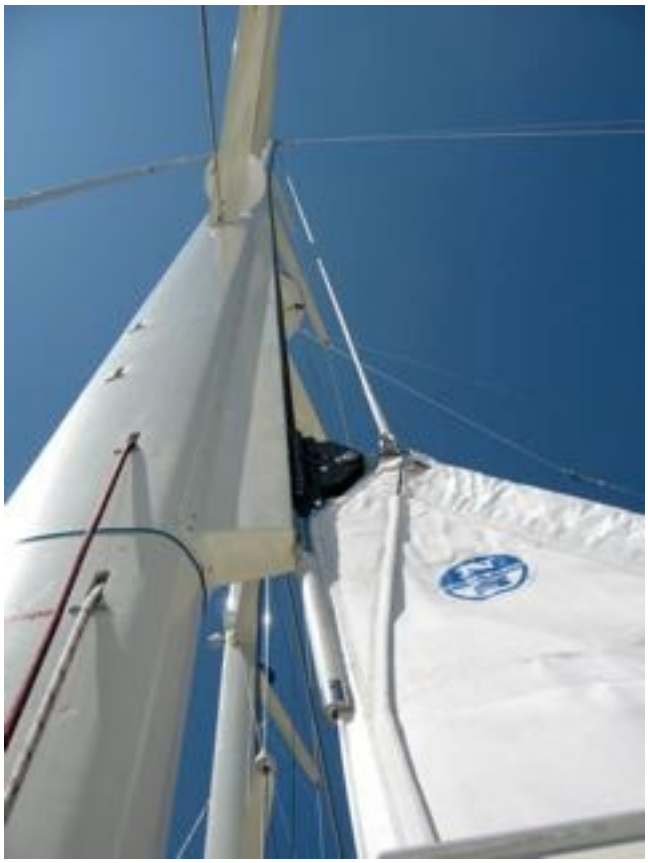

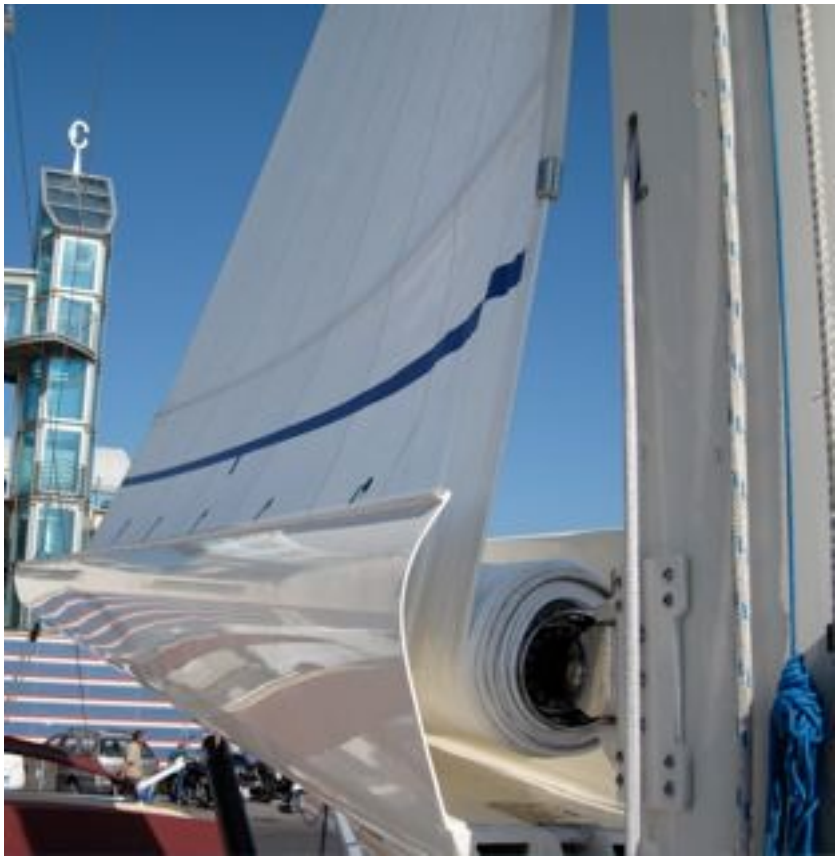

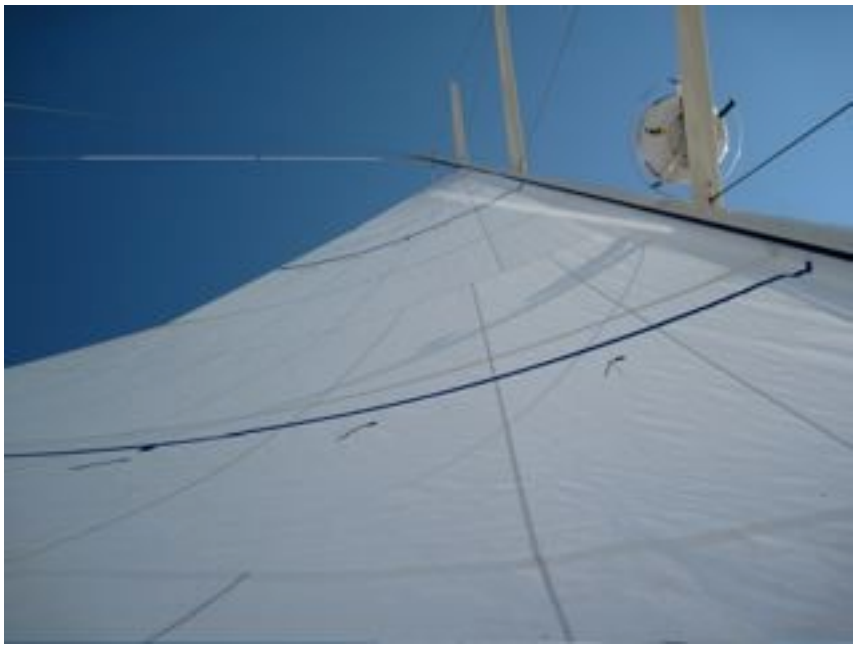

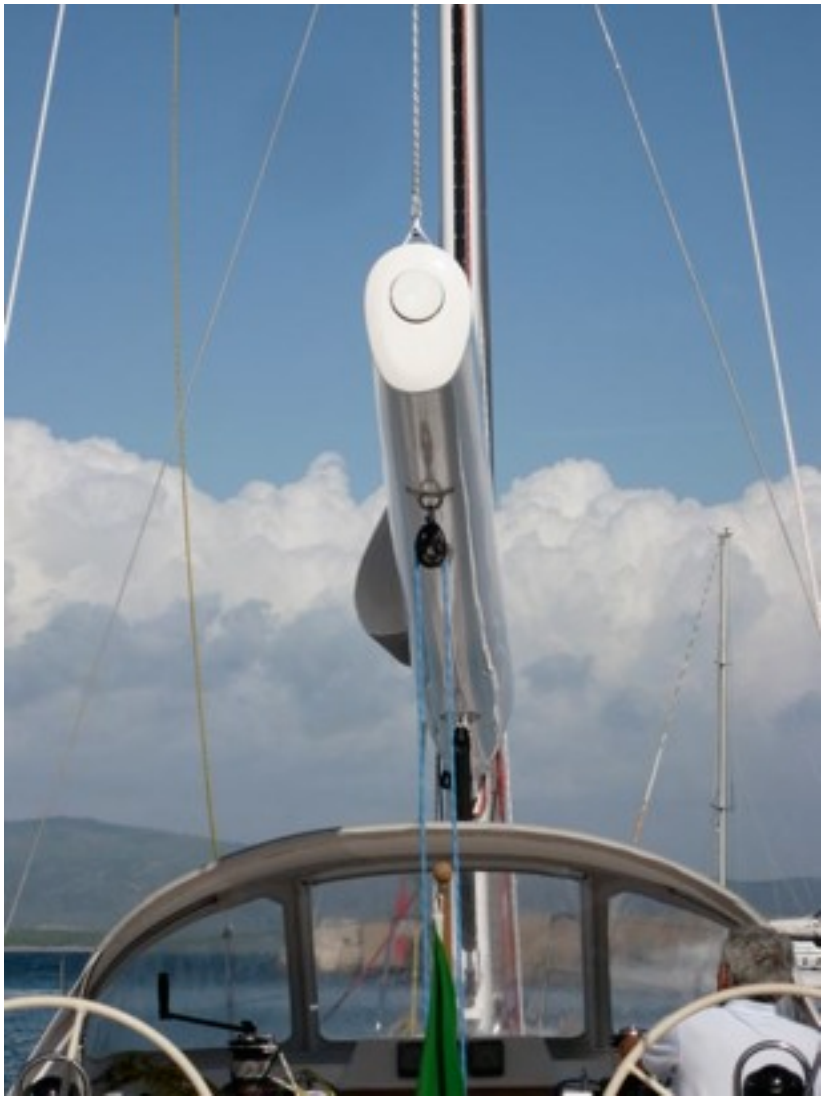

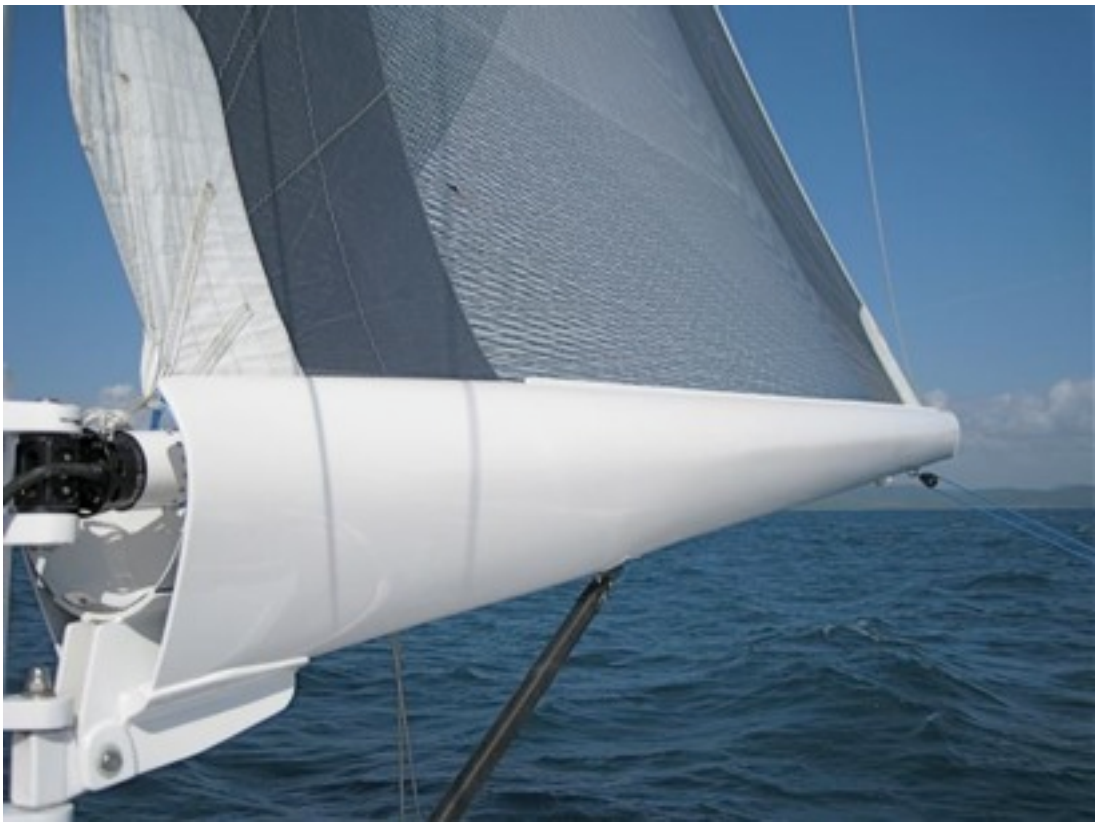

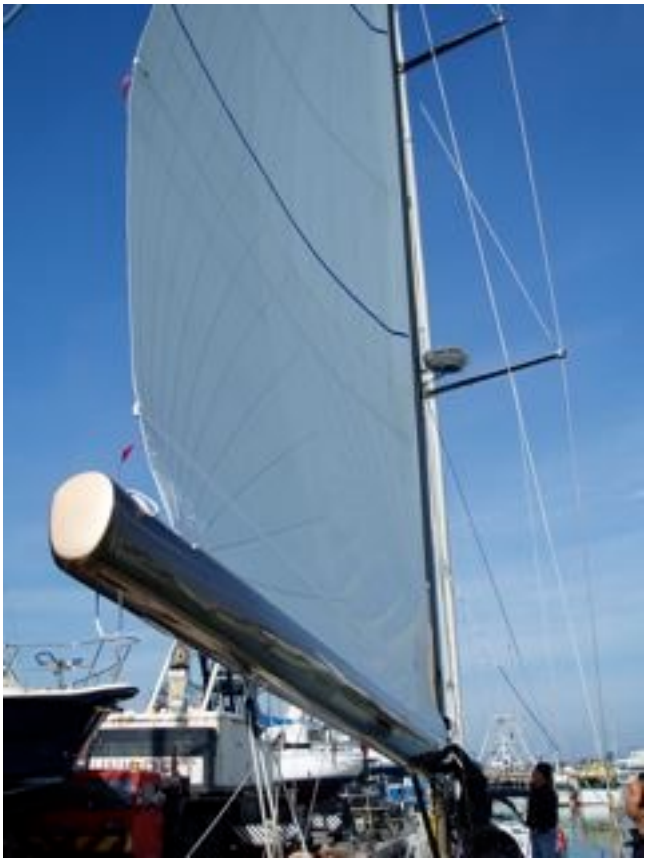

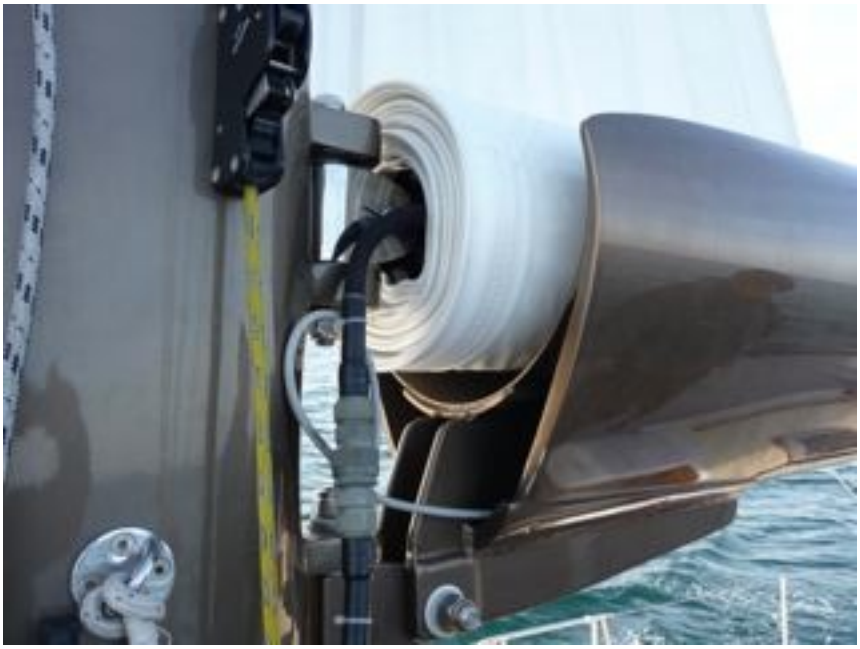

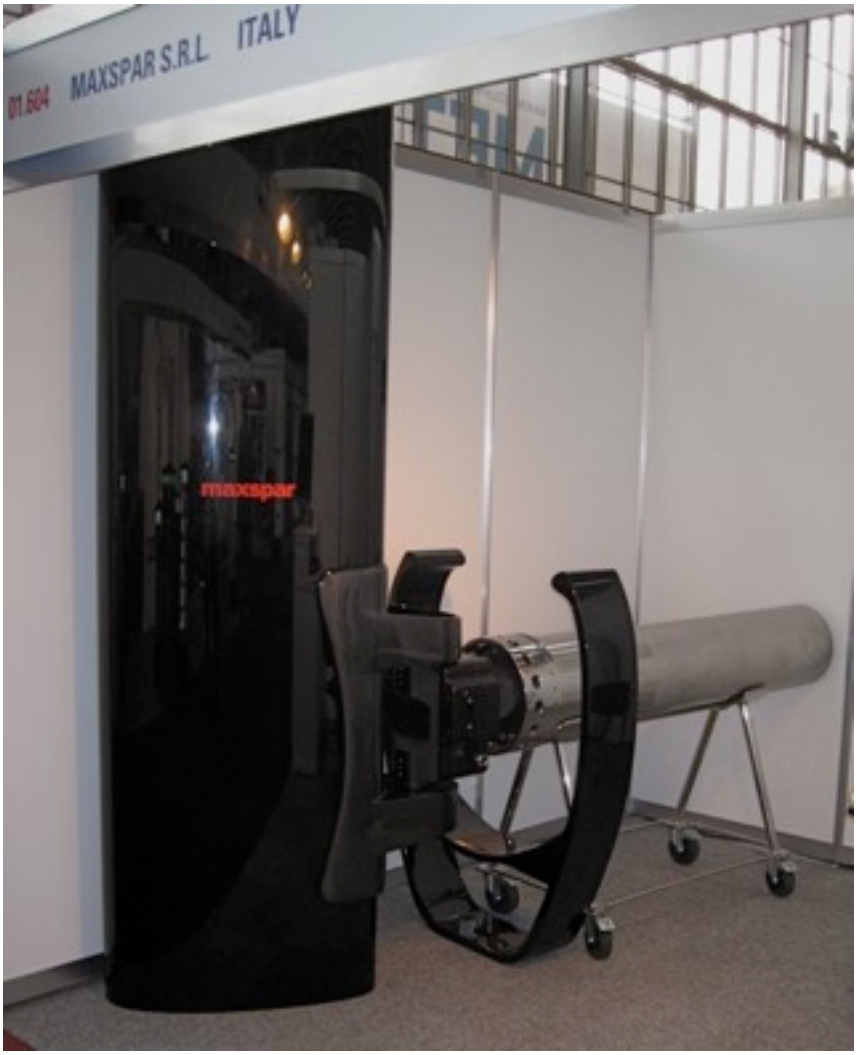
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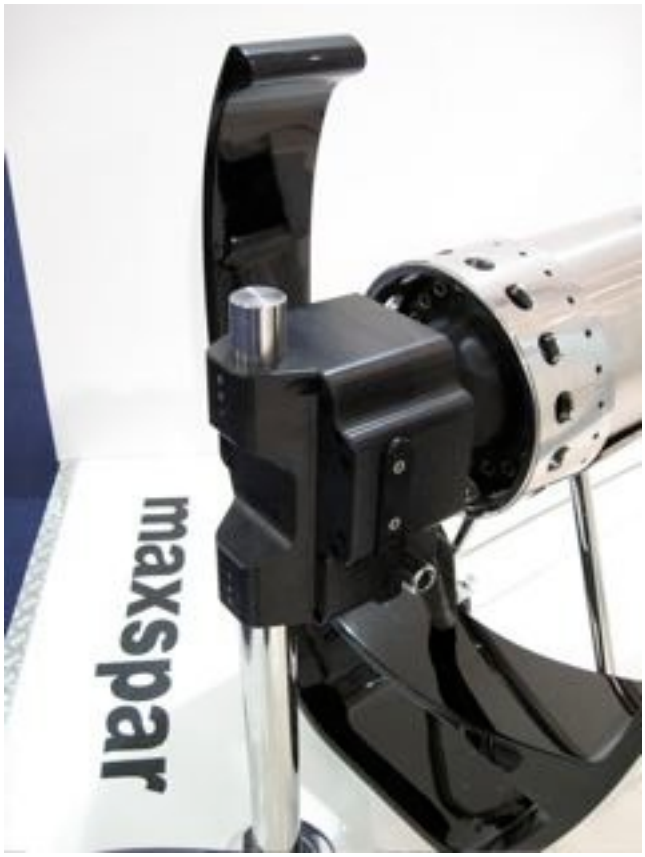
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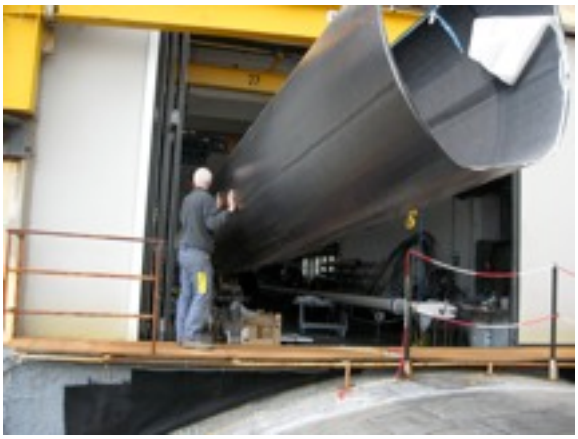

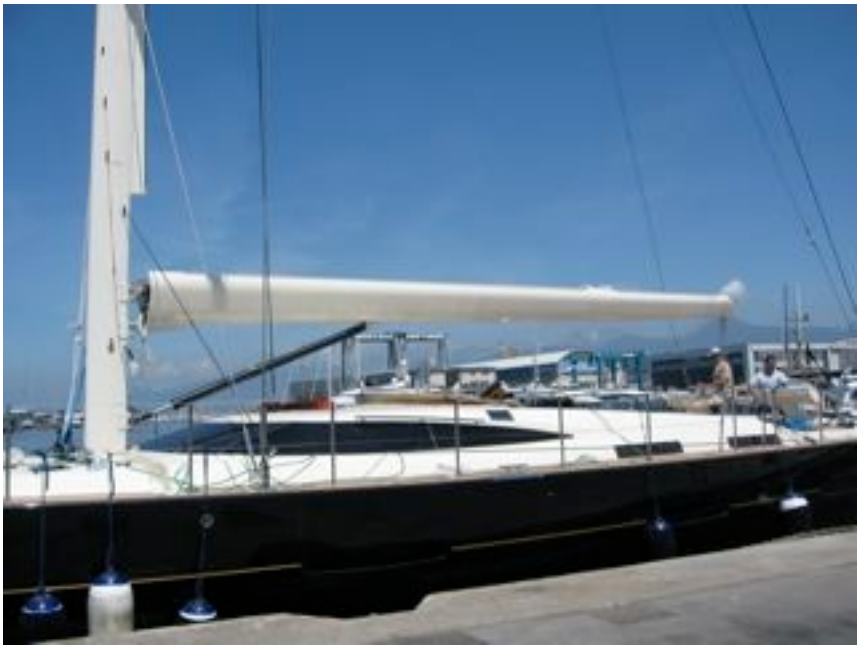

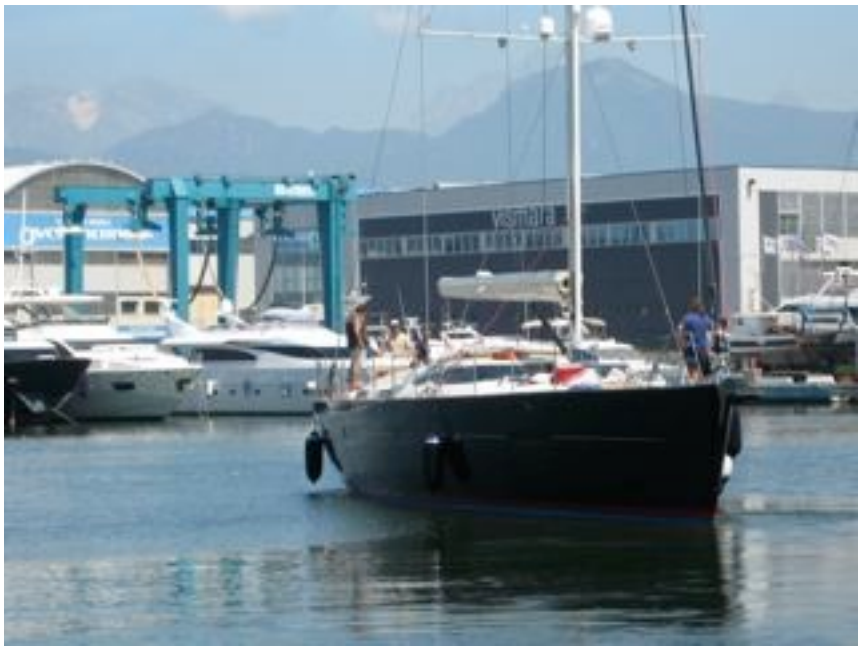

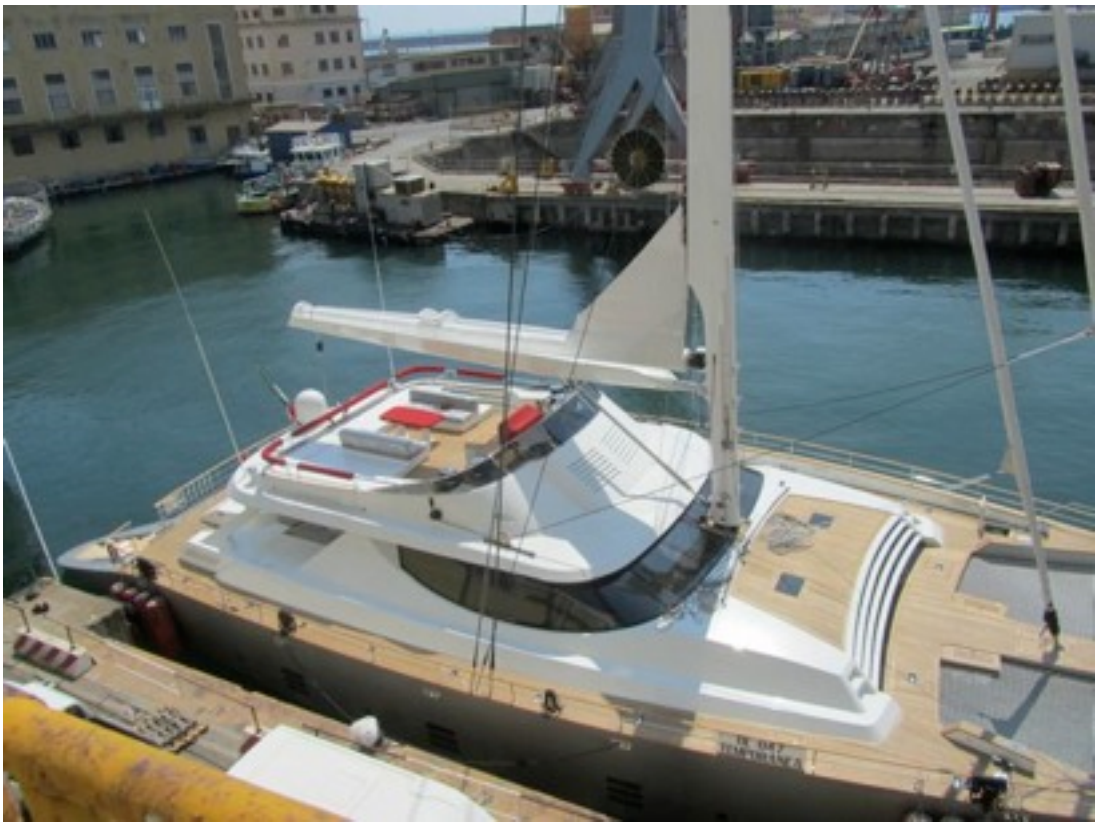

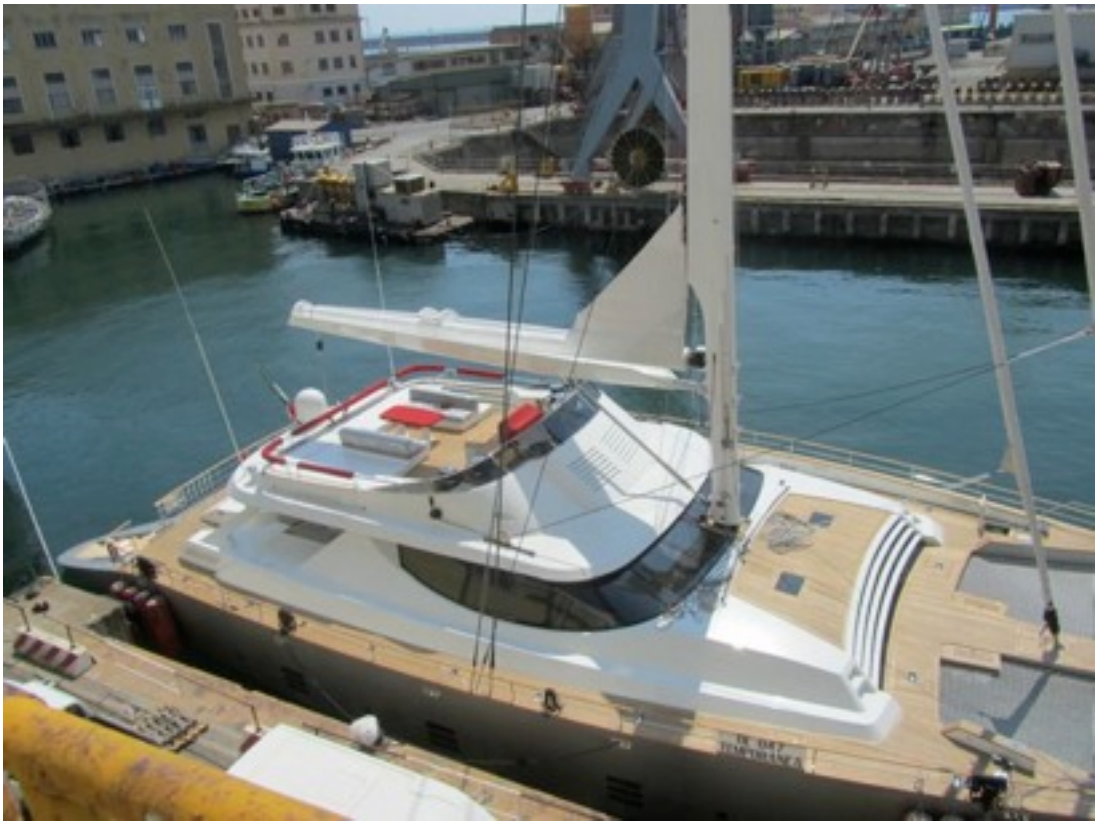

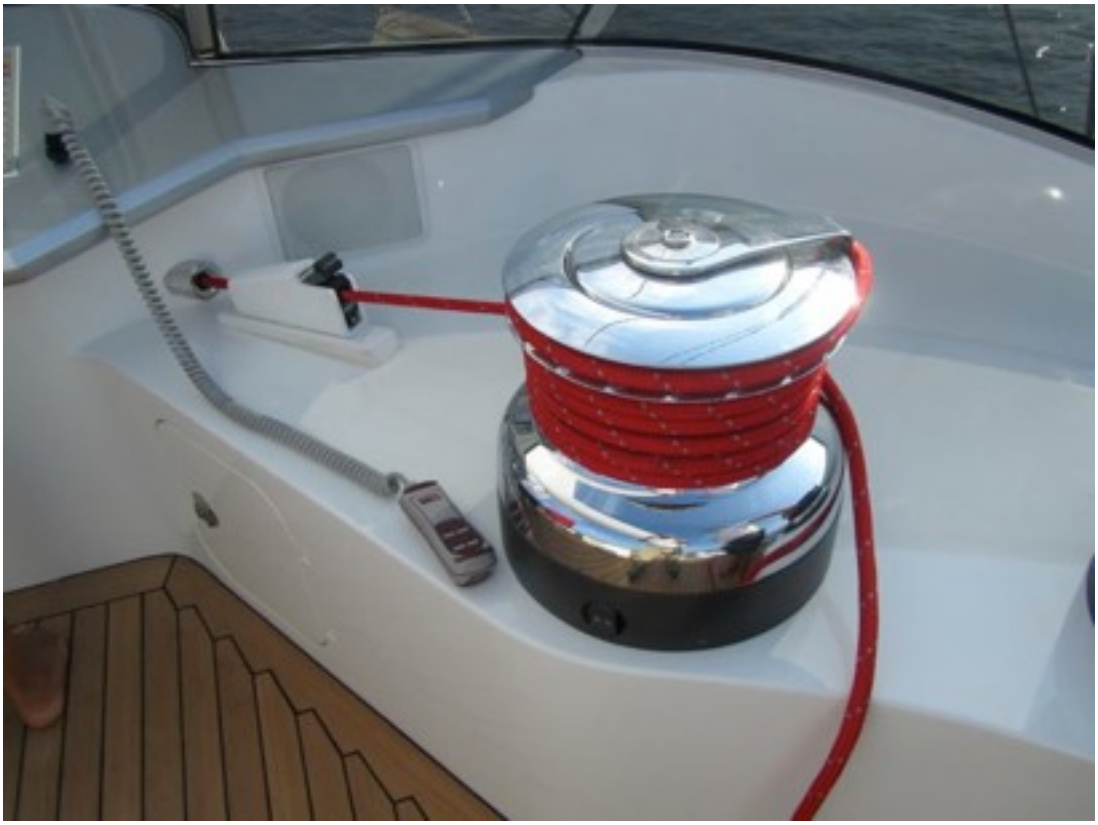

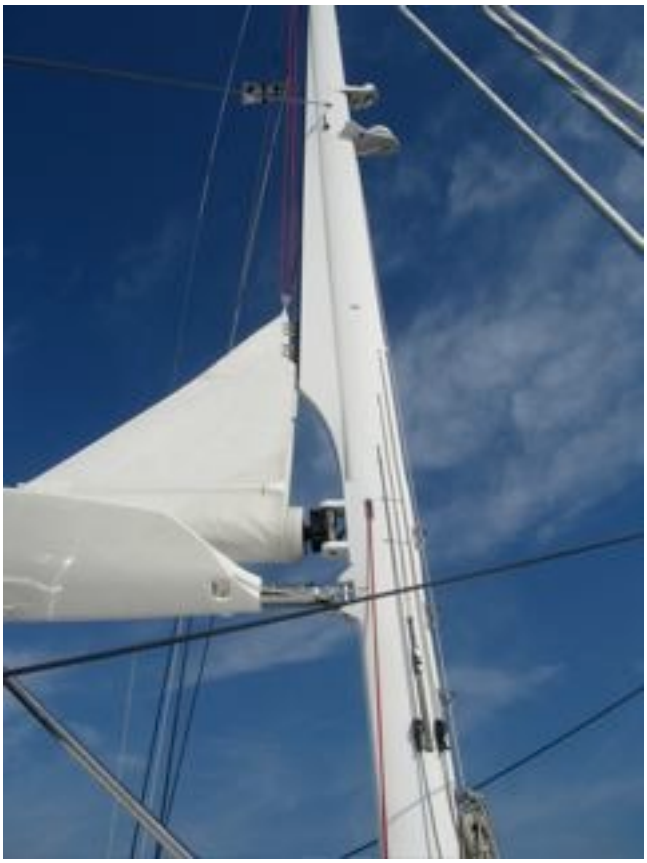

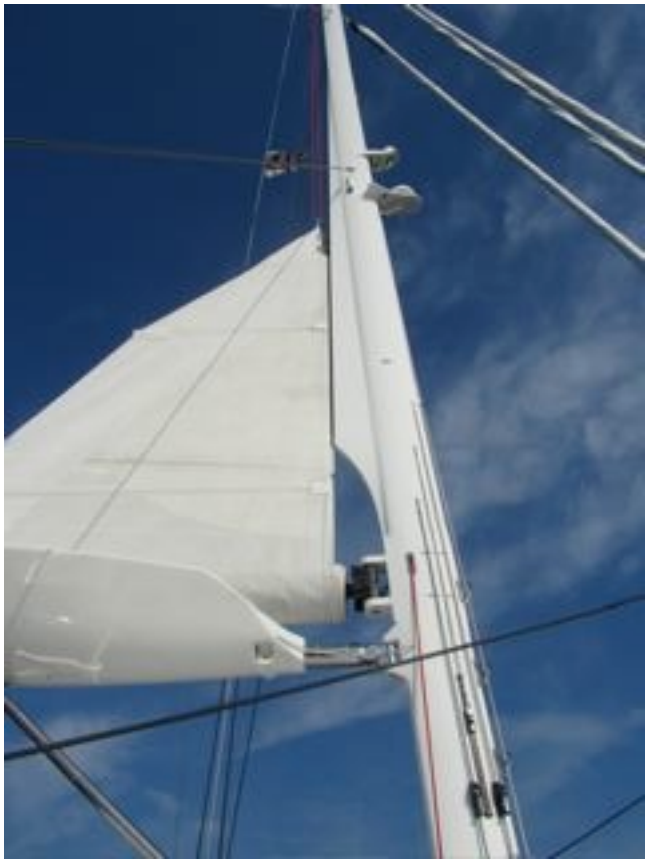

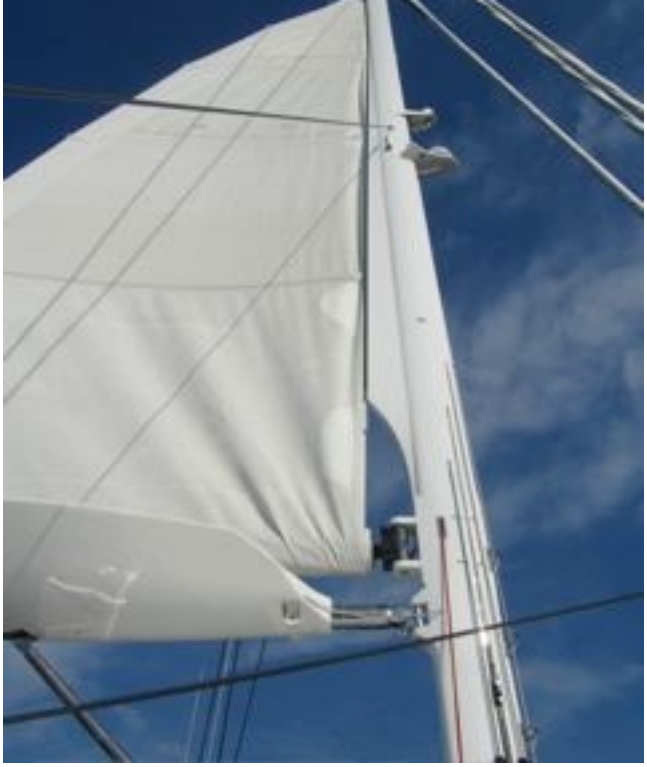

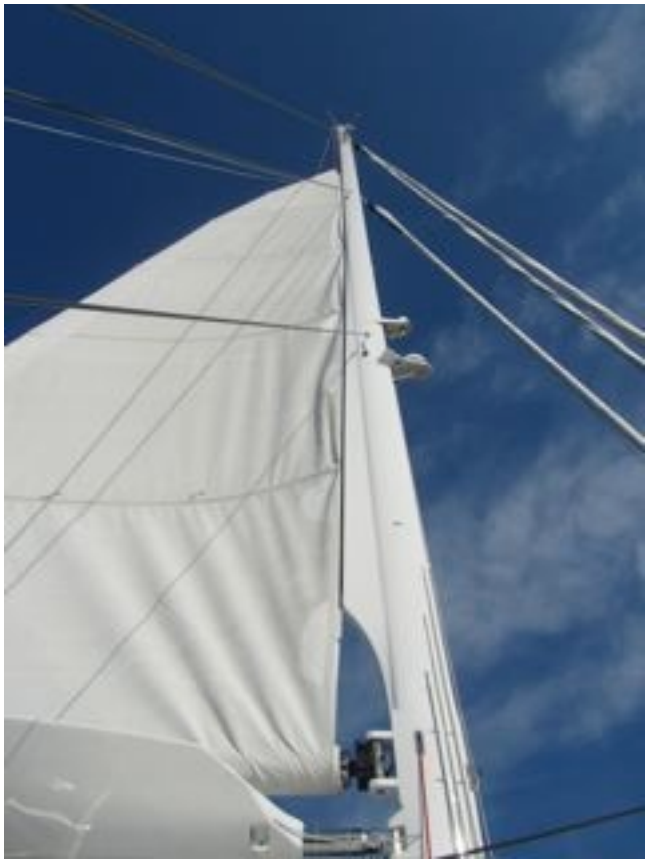

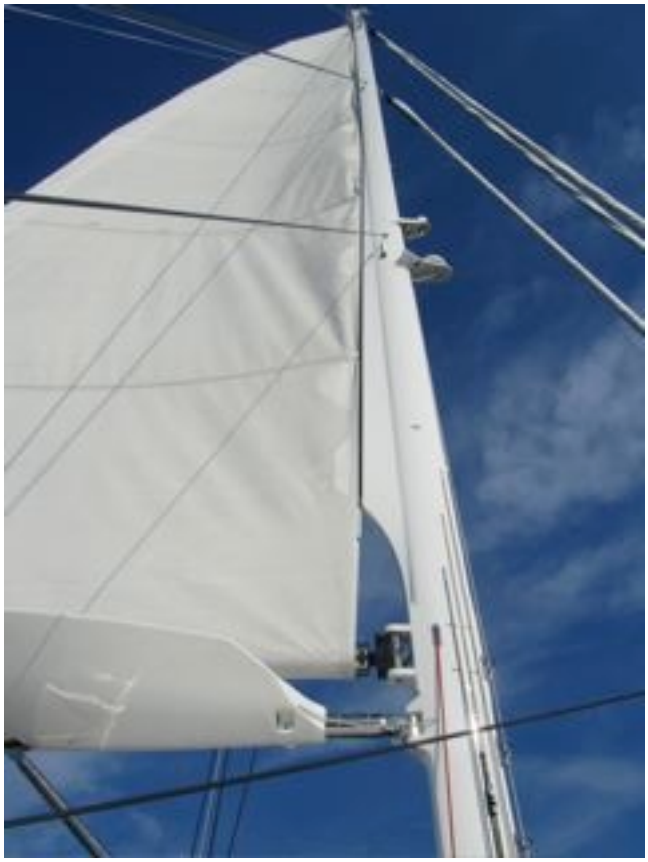

Furling time 120 sec p=30 mt

They are essential to use the boom furling:

-electric/idraulic winch for main halyard

-hydraulic vang to support the weight boom

Main sail -designed and built to be used according to our specifications for the boom furling

if you require any further details please not hesitate to contact me

Enrico Franchetti