

### Idea 21

#### main specifications:

- overall length: 6,70 m (retracted bowsprit)
- hull length: 6,47 m
- waterline length : 5,93m
- maximum beam: 2,50 m
- keel down draft: 1,65 m
- keel up draft: 0,52 m
- design displacement: 1200 kg
- light displacement: 920 kg
- ballast: 270 kg
- height from DWL: 9,52 m
- upwind sail area: 26,9 m<sup>2</sup>
- CE design category: Cat. B4-C6

projected sail areas  
 -mainsail 17,6 sqm  
 -105% J jib 9,3 sqm  
 -gennaker 34 sqm  
 -code zero 18,9 sqm

#### projected sails measurements (cm)

Sail	base	luff	roach
Mainsail	287	758	
105% J jib	272	750*	688

\* : real measurement of the sail on the forestay

measurements for mainsail reefing points are not mandatory; set the reefing points so that the second one reduce the mainsail area of approx. 40% or more, relating with the intended use and/or the presence of strong winds in the area; the third reefing point is not mandatory but recommended; mainsail has its base free on the boom, and is hoisted on mast with plastic sail slides or luffshuttle ones (best solution); provide full length battens with pockets and tension adjusters, set their positions according to sailmaker; lazy jack and lazy bag may be fitted (they're not on the drawing)

foresail for upwind sailing is a small low overlapping jib, hoisted on the wire or dyform forestay with classical hanks, you can decide to make it reefable; for downwind sailing a gennaker can be tacked on bowsprit; a code zero may be hoisted on the bowsprit too, to sail from upwind to reach in light winds

minimum scantling for mast stiffness:  
 mast in aluminium alloy or carbon composite; 7/8 fractional rig, untapered, 3-4 internal halyards  
 lxx= 50 cm<sup>4</sup>  
 lyy= 80 cm<sup>4</sup>  
 l spreaders: 0,44 cm<sup>4</sup>

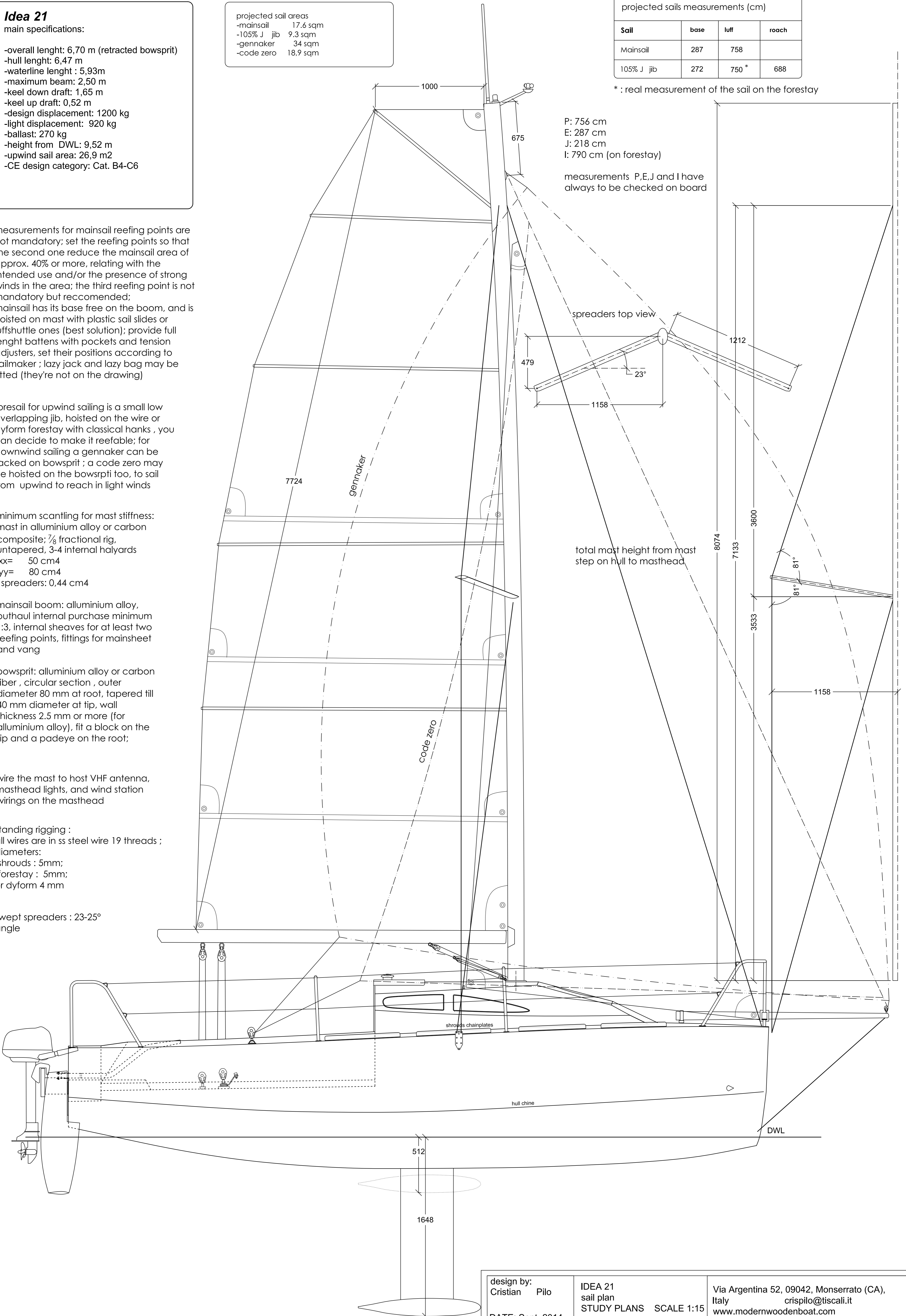
mainsail boom: aluminium alloy, outhaul internal purchase minimum 1:3, internal sheaves for at least two reefing points, fittings for mainsheet and vang

bowsprit: aluminium alloy or carbon fiber, circular section, outer diameter 80 mm at root, tapered till 40 mm diameter at tip, wall thickness 2.5 mm or more (for aluminium alloy), fit a block on the tip and a padeye on the root;

wire the mast to host VHF antenna, masthead lights, and wind station wirings on the masthead

standing rigging:  
 all wires are in ss steel wire 19 threads;  
 diameters:  
 -shrouds: 5mm;  
 -forestay: 5mm;  
 or dyform 4 mm

swept spreaders: 23-25° angle



design by:  
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IDEA 21  
sail plan  
STUDY PLANS SCALE 1:15

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