

I.O.R. Halftonner #01

Project : Halftonner01
Designer : Delta Consultants-P.Visser
Filename : I:\freeships\halftonner01\ht01.fbm

Length over all : 9.000 m
Beam over all : 2.960 m
Design draft : 1.800 m
Midship location : 3.600 m
Water density : 1.025 t/m³
Appendage coefficient : 1.0000

Volume properties:

Displaced volume : 2.861 m³
Displacement : 2.933
tonnes
Total length of submerged body : 8.264 m
Total beam of submerged body : 2.414 m
Block coefficient : 0.0797
Prismatic coefficient : 0.5096
Vert. prismatic coefficient : 0.1281
Wetted surface area : 16.559 m²
Longitudinal center of buoyancy : 4.238 m
Longitudinal center of buoyancy : -0.806 %
Tranverse center of buoyancy : 0.000 m
Vertical center of buoyancy : 1.642 m

Midship properties:

Midship section area : 0.679 m²
Midship coefficient : 0.1564

Waterplane properties:

Length on waterline : 7.925 m
Beam on waterline : 2.414 m
Waterplane area : 12.410 m²
Waterplane coefficient : 0.6220

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Waterplane center of floatation	:	4.063 m
Y coordinate of DWL area CoG	:	0.000 m
Half entrance angle of DWL	:	15.303 degr
Transverse moment of inertia	:	4.186 m ⁴
Longitudinal moment of inertia	:	36.761 m ⁴

Initial stability:

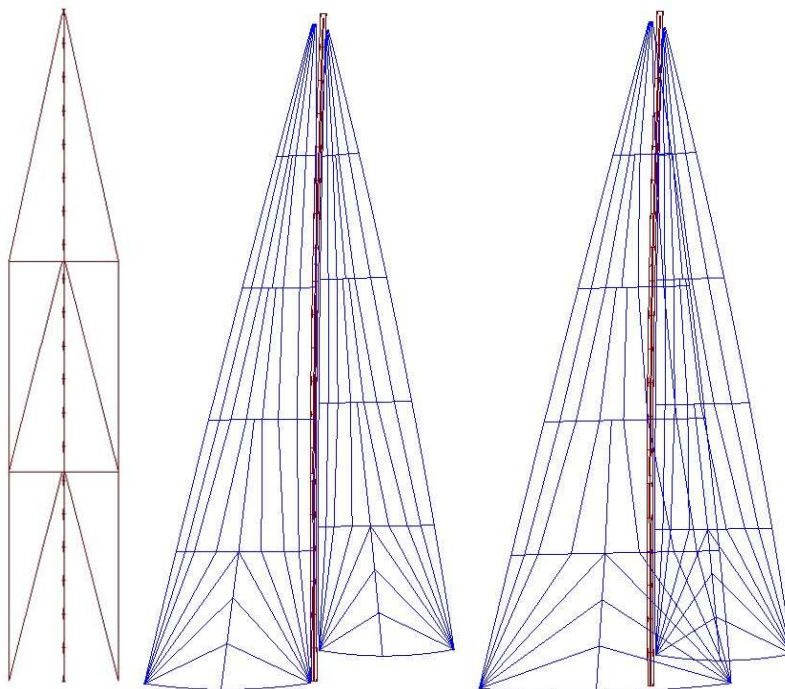
Vertical of transverse metacenter	:	3.105 m
Tranverse metacentric radius	:	1.463 m
Longitudinal transverse metacenter	:	14.490 m
Longitudinal metacentric radius	:	12.848 m

Lateral plane:

Lateral area	:	3.447 m ²
Longitudinal center of effort	:	4.120 m
Vertical center of effort	:	1.351 m

Hull characteristics above waterline:

Lateral wind area	:	8.598 m ²
Z coordinate of wind area CoG above DWL	:	0.526 m
Distance from bow to wind area CoG	:	3.168 m



Main 28m²/High Aspect 35m²/Genoa 52m²

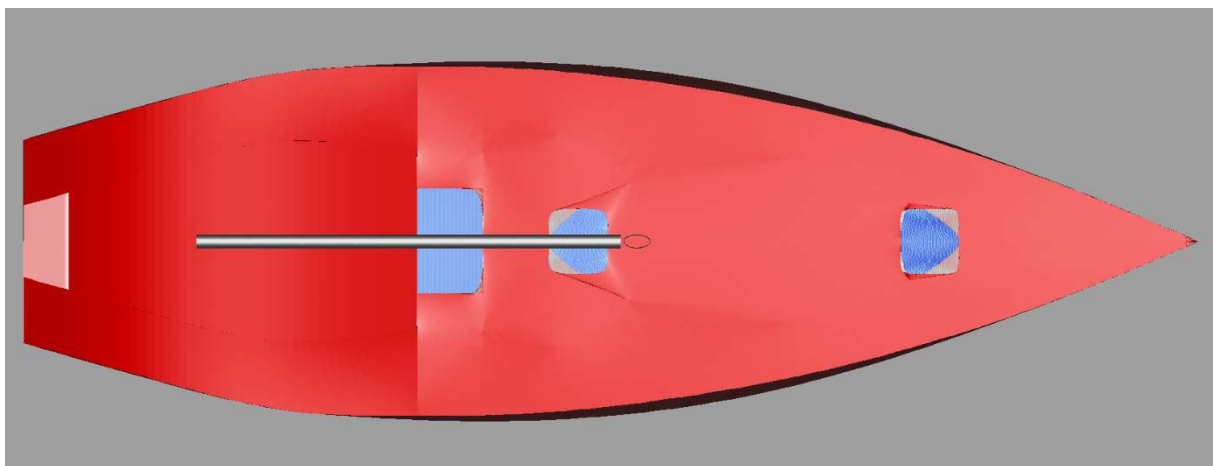
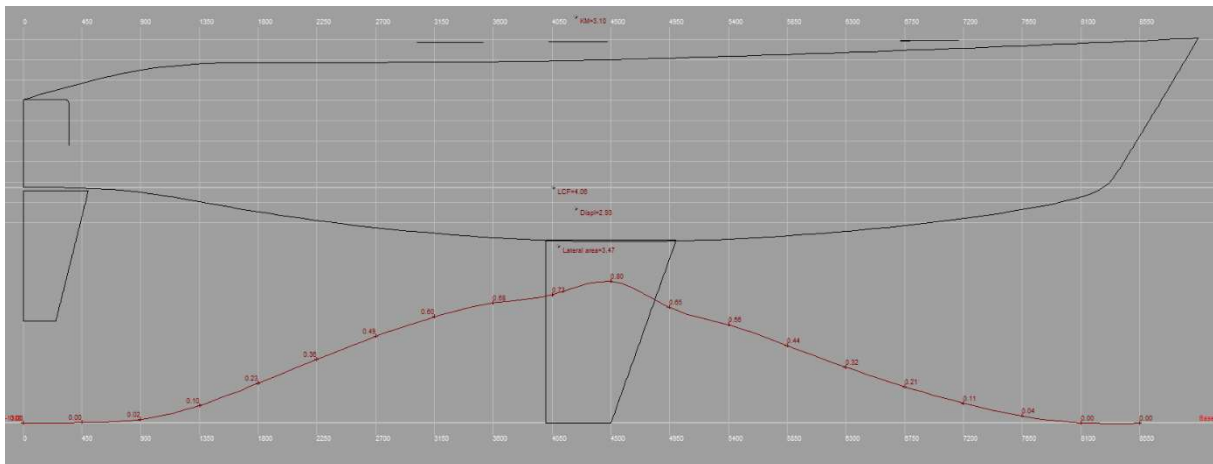
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The following layer properties are calculated for both sides of the ship:

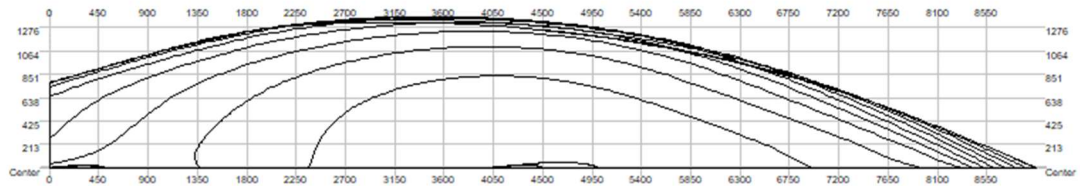
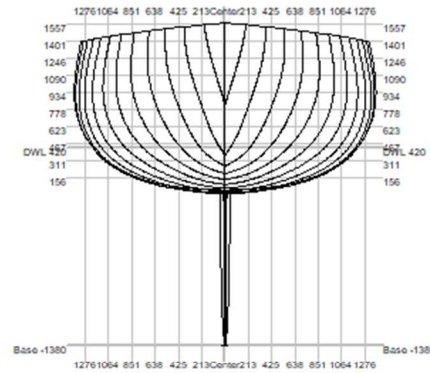
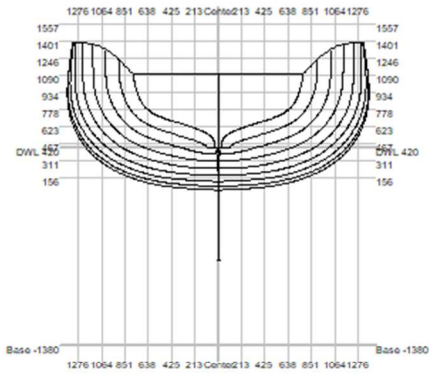
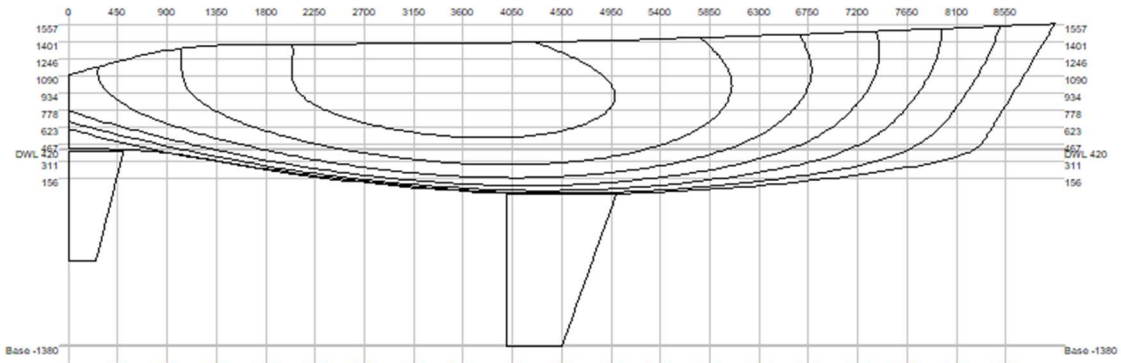
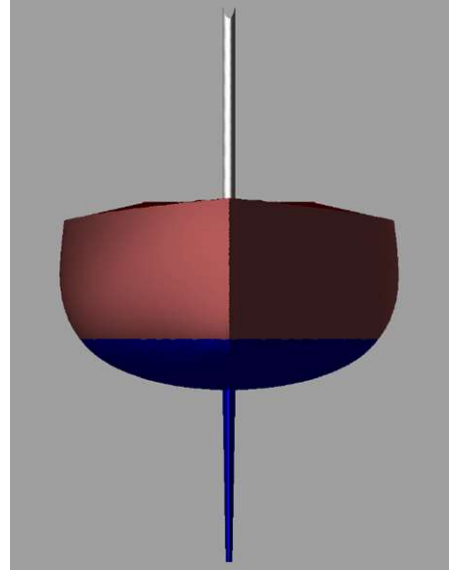
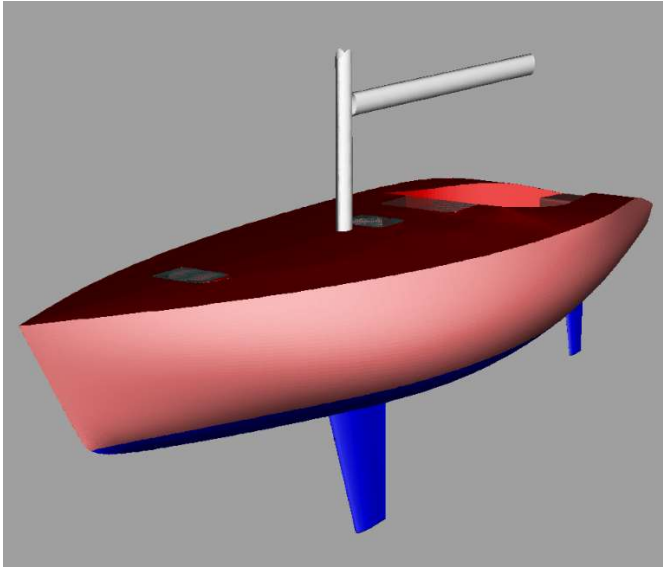
Layer	Area	Thickness	Weight	COG X	COG Y	COG Z
	m ²	mm	tonnes	m	m	m
Hull	34.970	30.000	0.944	4.066	0.000	2.006
Trapezoidal keel NACA63	2.200	0.000	1.100	4.396	0.000	0.790
Trapezoidal rudder NACA	0.777	0.000	0.050	0.197	0.000	1.342
Deck	20.560	20.000	0.370	3.472	0.000	2.680
Rest			0.400			
Total	59.345		2.864	3.899	0.000	2.196

NOTE 1: Draft (and all other vertical heights) is measured above the lowest point of the hull! (Z= 0.000)

NOTE 2: All calculated coefficients based on actual dimensions of submerged body.



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