

## Minimum Rating Admirals Copper 40 feet overall

Project : Minimum rating Admirals Copper  
Designer : Delta Consultants-P. Visser  
Filename : I:\freeships\40 feet\ac01.fbm

Length over all : 12.200 m  
Beam over all : 4.161 m  
Draft : 2.400 m  
Midship location : 4.270 m  
Water density : 1.025 t/m<sup>3</sup>

### Volume properties:

Displaced volume : 6.143 m<sup>3</sup>  
Displacement : 6.297 tonnes  
Total length of submerged body : 11.211 m  
Total beam of submerged body : 3.151 m  
Block coefficient : 0.0725  
Prismatic coefficient : 0.5129  
Vert. prismatic coefficient : 0.1193  
Wetted surface area : 28.462 m<sup>2</sup>  
Longitudinal center of buoyancy : 5.645 m  
Longitudinal center of buoyancy : -3.413 %  
Transverse center of buoyancy : 0.000 m  
Vertical center of buoyancy : 2.201 m

### Midship properties:

Midship section area : 1.068 m<sup>2</sup>  
Midship coefficient : 0.1413

### Waterplane properties:

Length on waterline : 10.421 m  
Beam on waterline : 3.151 m  
Waterplane area : 21.465 m<sup>2</sup>  
Waterplane coefficient : 0.6076

## Minimum Rating Admirals Copper 40 feet overall

Waterplane center of floatation	:	5.446 m
Y coordinate of DWL area CoG	:	0.000 m
Half entrance angle of DWL	:	14.814 degr
Transverse moment of inertia	:	12.260 m <sup>4</sup>
Longitudinal moment of inertia	:	114.51 m <sup>4</sup>

### Initial stability:

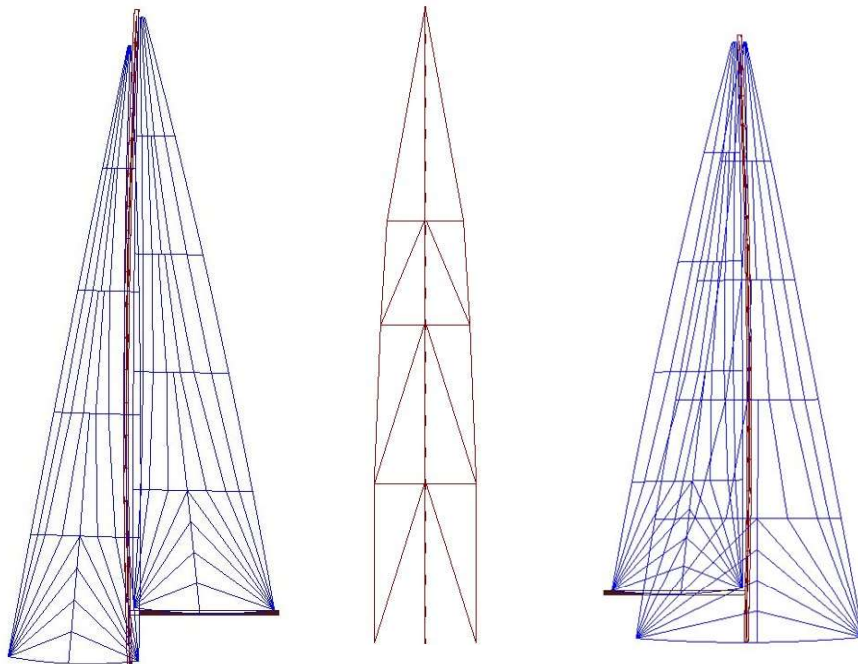
Vertical of transverse metacenter	:	4.196 m
Tranverse metacentric radius	:	1.996 m
Longitudinal transverse metacenter	:	20.841 m
Longitudinal metacentric radius	:	18.640 m

### Lateral plane:

Lateral area	:	5.938 m <sup>2</sup>
Longitudinal center of effort	:	5.428 m
Vertical center of effort	:	1.821 m

### Hull characteristics above waterline:

Lateral wind area	:	13.255 m <sup>2</sup>
Z coordinate of wind area CoG above DWL	:	0.636 m
Distance from bow to wind area CoG	:	3.670 m



With high aspect HA 43m<sup>2</sup> Main 45m<sup>2</sup> Genoa One 50% overlap 80m<sup>2</sup>

## Minimum Rating Admirals Copper 40 feet overall

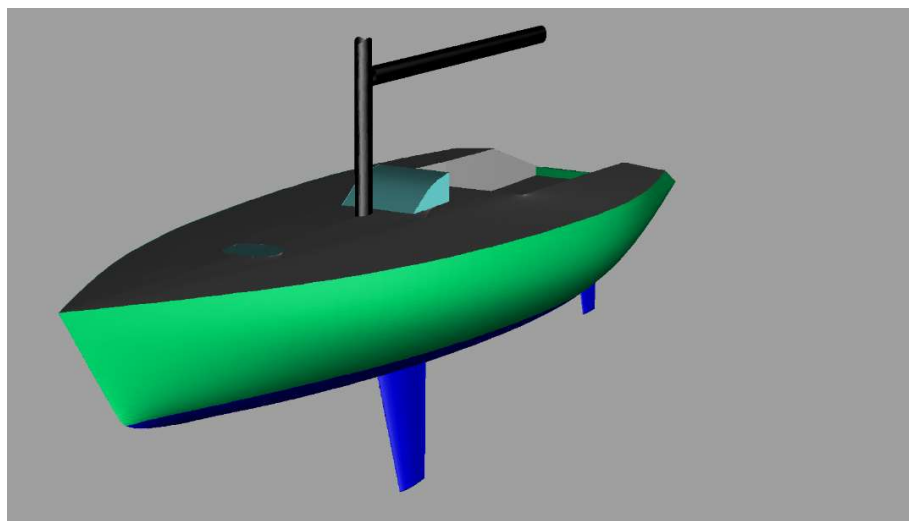
The following layer properties are calculated for both sides of the ship:

Layer	Area	Thickness	Weight	COG X	COG Y	COG Z
	m <sup>2</sup>	mm	tonnes	m	m	m
Hull	60.934	50.000	2.437	5.546	0.000	2.648
Deck	44.38	30.000	1.065	4.836	0.000	3.505
Trapezoidal						
keel NACA63	3.721	0.000	2.000	5.495	0.000	1.071
Trapezoidal						
rudder NACA	1.382	0.000	0.010	0.294	0.000	1.842
Engine, Rig						
Sails, spars &						
Interiour	44.38		0.700	4.836	0.000	3.505
-----						
Total	120.23		3.503	5.330	0.000	2.908

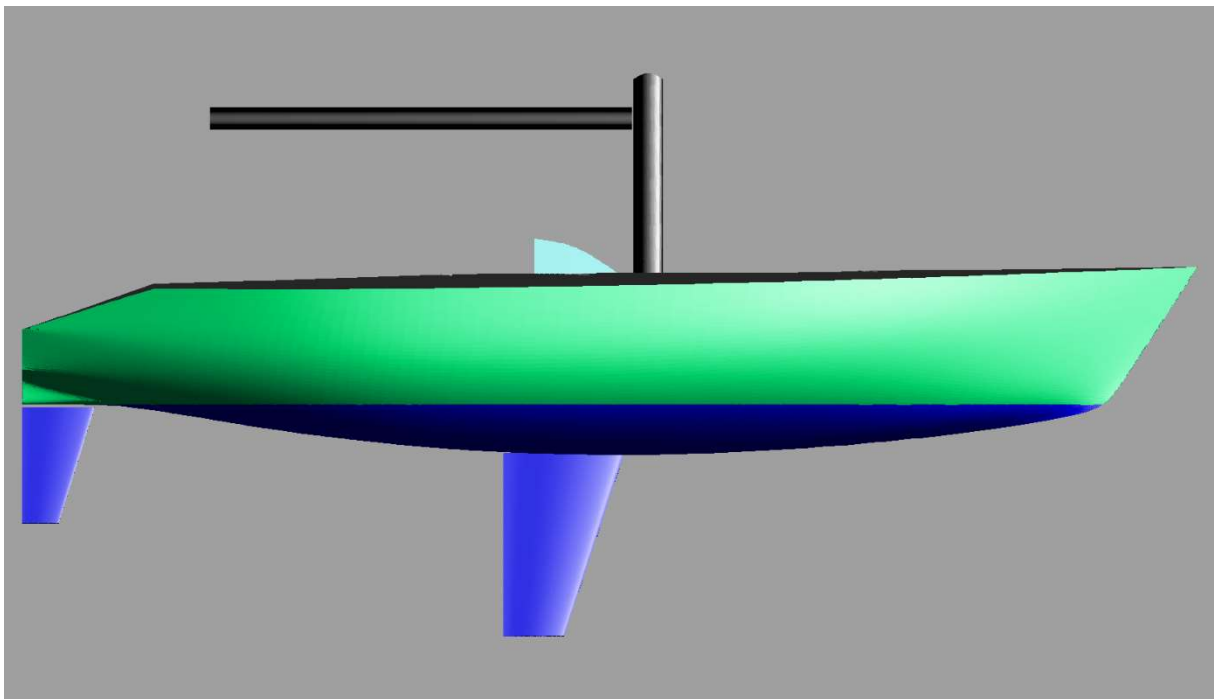
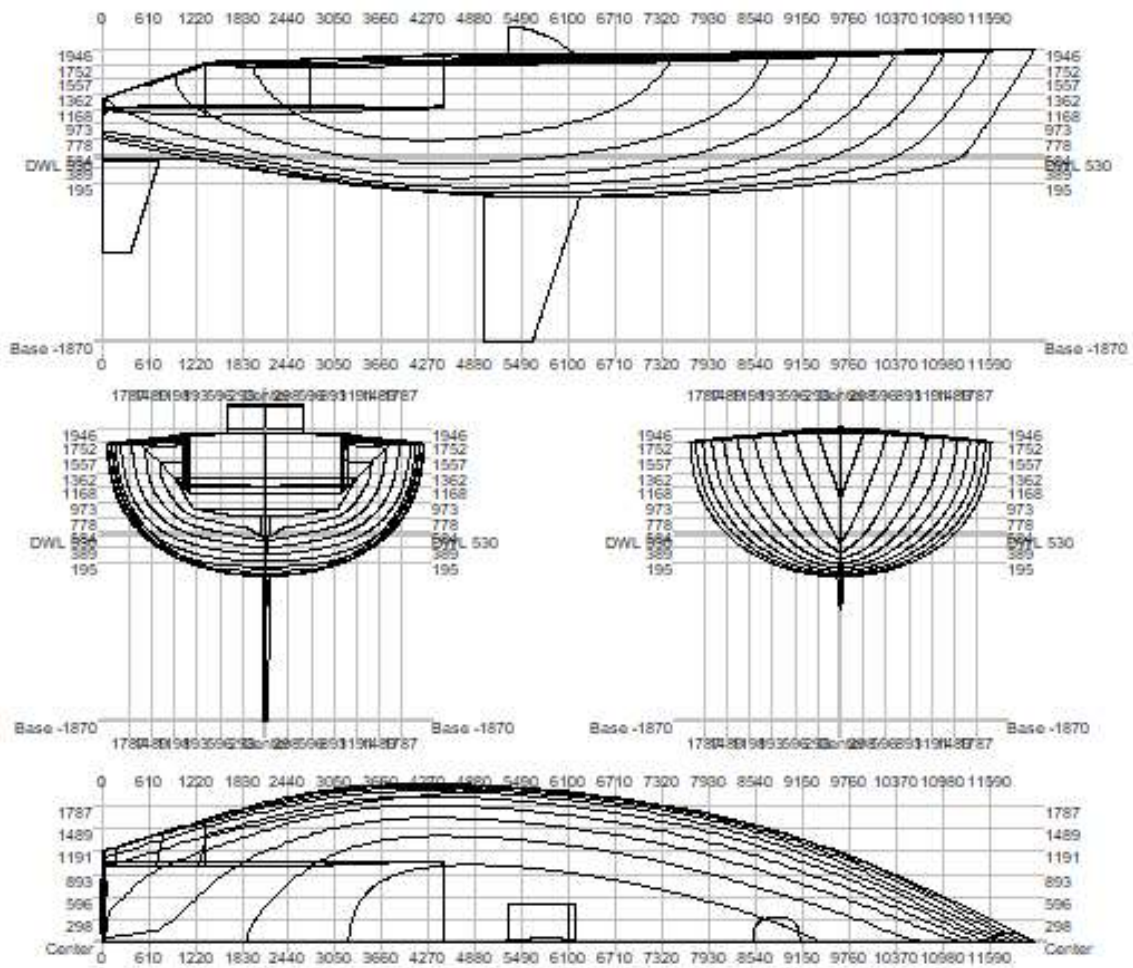
NOTE 1: Draft (and all other vertical heights) is measured above the lowest point of the hull! (Z= 0.000)

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

Note 3: The bulb characteristics is calcs right, if F.P. is through point of intersection forward line with DWL.



# Minimum Rating Admirals Cupper 40 feet overall



# Minimum Rating Admirals Cupper 40 feet overall

