

Project : MK VIII 650/2
 Designer : als IOM: Michael Scharmer; als RG 65 VeitHam
 Filename : D:\Eigene Dateien\VEIT Boote\SCH MK8\FreeShip\Veit Mk
 VIII650.fbm

Design length : 6.500 m
 Length over all : 6.501 m
 Design beam : 1.252 m
 Beam over all : 1.250 m
 Design draft : 0.400 m
 Midship location : 3.250 m
 Water density : 1.000 t/m³
 Appendage coefficient : 1.0000

Volume properties:

Displaced volume : 1.051 m³
 Displacement : 1.051 tonnes
 Total length of submerged body : 6.342 m
 Total beam of submerged body : 0.908 m
 Block coefficient : 0.4563
 Prismatic coefficient : 0.5751
 Vert. prismatic coefficient : 0.6384
 Wetted surface area : 6.474 m²
 Longitudinal center of buoyancy : 3.045 m
 Longitudinal center of buoyancy : -4.159 %
 Transverse center of buoyancy : 0.000 m
 Vertical center of buoyancy : 0.245 m

Midship properties:

Midship section area : 0.288 m²
 Midship coefficient : 0.7935

Waterplane properties:

Length on waterline : 6.342 m
 Beam on waterline : 0.908 m
 Waterplane area : 4.115 m²
 Waterplane coefficient : 0.7148
 Waterplane center of floatation : 2.878 m
 Y coordinate of DWL area CoG : 0.000 m
 Half entrance angle of DWL : 15.796 degr
 Transverse moment of inertia : 0.203 m⁴
 Longitudinal moment of inertia : 9.298 m⁴

Initial stability:

Vertical of transverse metacenter : 0.438 m
 Transverse metacentric radius : 0.193 m
 Longitudinal transverse metacenter : 9.093 m
 Longitudinal metacentric radius : 8.848 m

Lateral plane:

Lateral area : 1.735 m²
 Longitudinal center of effort : 3.299 m
 Vertical center of effort : 0.237 m

Hull characteristics above waterline:

Lateral wind area : 4.525 m²
 Z coordinate of wind area CoG : 0.757 m
 X coordinate of wind area CoG : 3.467 m
 Distance from wind area CoG to DWL : 0.358 m
 Distance from bow (FP) to wind area CoG : 3.013 m
 Minimal board height over DWL : 0.435 m
 Minimal board height over DWL : 6.686 %Lmax

Stability characteristics:

Test stability coefficient : 4.280 if >= 0,8 then

OK

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

COG Z	Layer	Area	Thickness	Weight	COG X	COG Y
m		m ²	mm	tonnes	m	m
0.582	Layer 0	18.303	0.000	0.000	3.331	0.000

Attention: Weight of a ship and displacement are difference more then 10% !

Sectional areas:

Location	Area
m	m ²
0.138	0.000
0.325	0.015
0.650	0.063
0.975	0.115
1.300	0.167
1.625	0.213
1.950	0.251
2.275	0.278
2.600	0.292
2.925	0.296
3.250	0.288
3.575	0.272
3.900	0.248
4.225	0.216
4.550	0.180
4.875	0.140
5.200	0.100
5.525	0.061
5.850	0.030
6.175	0.009
6.479	0.000

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.