

Design hydrostatics report.

<div>Designer</div> <div>Created by</div> <div>Comment</div> <div>Filename REVChine model.fbm</div>			
Design length	31.833 (ft)	Midship location	15.917 (ft)
Length over all	31.833 (ft)	Relative water density	1.000
Design beam	13.859 (ft)	Mean shell thickness	0.0208 (ft)
Maximum beam	13.859 (ft)	Appendage coefficient	1.0000
Design draft	2.000 (ft)		

Volume properties		Waterplane properties	
Moulded volume	376.25 (ft^3)	Length on waterline	29.964 (ft)
Total displaced volume	384.46 (ft^3)	Beam on waterline	13.467 (ft)
Displacement	10.715 (tons)	Entrance angle	21.909 (Degr.)
Block coefficient	0.4357	Waterplane area	344.81 (ft^2)
Prismatic coefficient	0.7583	Waterplane coefficient	0.7816
Vert. prismatic coefficient	0.5456	Waterplane center of floatation	13.144 (ft)
Wetted surface area	394.92 (ft^2)	Transverse moment of inertia	4572.0 (ft^4)
Longitudinal center of buoyancy	12.744 (ft)	Longitudinal moment of inertia	20205 (ft^4)
Longitudinal center of buoyancy	-10.587 %		
Vertical center of buoyancy	1.353 (ft)		

Midship properties		Initial stability	
Midship section area	15.926 (ft^2)	Transverse metacentric height	13.505 (ft)
Midship coefficient	0.5746	Longitudinal metacentric height	55.055 (ft)

Lateral plane	
Lateral area	55.023 (ft^2)
Longitudinal center of effort	14.837 (ft)
Vertical center of effort	1.064 (ft)

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

Layer	Area	Thickness	Weight	VCG	LCG	TCG
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	<i>(ft^2)</i>		<i>(tons)</i>	<i>(ft)</i>	<i>(ft)</i>	<i>(ft)</i>
Strake 1	368.52	0.000	0.000	1.012	14.755	0.000 (CL)
Strake 2	25.095	0.000	0.000	1.786	14.276	0.000 (CL)
Strake 3	310.26	0.000	0.000	4.218	15.770	0.000 (CL)
Close hull	71.940	0.000	0.000	3.756	0.032	0.000 (CL)
<b>Total</b>	<b>775.81</b>		<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000 (CL)</b>

Sectional areas									
Location	Area	Location	Area	Location	Area	Location	Area	Location	Area
<i>(ft)</i>	<i>(ft^2)</i>	<i>(ft)</i>	<i>(ft^2)</i>	<i>(ft)</i>	<i>(ft^2)</i>	<i>(ft)</i>	<i>(ft^2)</i>	<i>(ft)</i>	<i>(ft^2)</i>
22.148	11.223	24.747	8.602	27.581	3.960				
23.329	9.995	26.164	6.901	28.962	0.885				



*NOTE 1: Draft (and all other vertical heights) is measured above base  $Z=0.00$ !*

*NOTE 2: All calculated coefficients based on project length, draft and beam.*