Design hydrostatics report

Corbin 39

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Comment	redrawing & reverse engineerin
Filename	C9 V0_Offsets (Excel + DelftImport + Images - Surfaces) v6 - 41.fbm

Design length	11.830 (m)	Midship location	5.915 (m)
Length over all	11.826 (m)	Relative water density	1.0250
Design beam	3.658 (m)	Mean shell thickness	0.0000 (m)
Maximum beam	3.658 (m)	Appendage coefficient	1.0000
Design draft	0.000 (m)		

Volume properties		Waterplane properties	
Moulded volume	11.084 (m^3)	Length on waterline	9.743 (m)
Total displaced volume	11.084 (m^3)	Beam on waterline	3.408 (m)
Displacement	11.361 (tonnes)	Entrance angle	37.080 (Degr.)
Block coefficient	0.0000	Waterplane area	22.916 (m^2)
Prismatic coefficient	0.0000	Waterplane coefficient	0.5296
Vert. prismatic coefficient	0.0000	Waterplane center of floatation	4.454 (m)
Wetted surface area	39.879 (m^2)	Transverse moment of inertia	15.575 (m^4)
Longitudinal center of buoyancy	4.543 (m)	Longitudinal moment of inertia	114.56 (m^4)
Longitudinal center of buoyancy	-14.079 %		
Vertical center of buoyancy	-0.361 (m)		

Midship properties		Initial stability	
Midship section area	1.803 (m^2)	Transverse metacentric height	1.044 (m)
Midship coefficient	0.0000	Longitudinal metacentric height	9.976 (m)

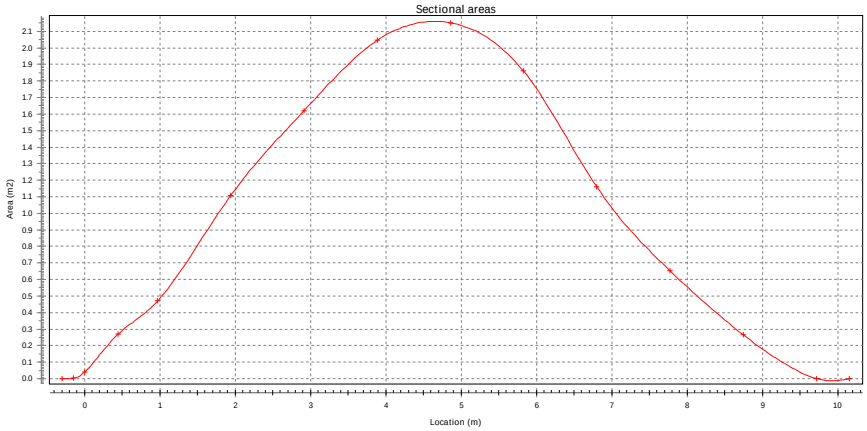
Lateral plane	
Lateral area	10.803 (m^2)
Longitudinal center of effort	4.348 (m)
Vertical center of effort	-0.669 (m)

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

Location	Area (m^2)	Thickness (m)	Weight (tonnes)	LCG (m)	TCG (m)	VCG (m)
Hull	61.314	0.000	0.000	4.756	0.000 (CL)	0.204
Trapezoidal rudder 0012	2.582	0.020	0.083	0.368	0.000 (CL)	-0.774
Trapezoidal keel 0012	10.567	0.020	0.338	4.771	0.000 (CL)	-1.110
Deck	32.736	0.032	1.309	4.848	0.000 (CL)	1.344
Total	107.200		1.730	4.619	0.000 (CL)	0.763

Sectional areas

Location (m)	Area (m^2)	Location (m)	Area (m^2)	Location (m)	Area (m^2)	Location (m)	Area (m^2)	Location (m)	Area (m^2)
-0.300	0.000	0.450	0.271	2.915	1.620	5.829	1.860	8.744	0.266
-0.150	0.003	0.972	0.470	3.886	2.046	6.801	1.159	9.716	0.001
0.000	0.039	1.943	1.108	4.858	2.152	7.772	0.653	10.156	0.000



NOTE 1: Draft (and all other vertical heights) is measured from base Z=0.000
NOTE 2: All calculated coefficients based on project length, draft and beam.