

Design hydrostatics report

Designer

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Comment

Filename WT35.fbm

Design length	10.970 m	Midship location	5.485 m
Length over all	11.048 m	Water density	1.0250
Design beam	3.650 m	Mean shell thickness	0.0000 m
Maximum beam	3.651 m	Appendage coefficient	1.0000
Design draft	0.910 m		

Volume properties		Waterplane properties	
Moulded volume	12.320 m ³	Length on waterline	8.336 m
Total displaced volume	12.320 m ³	Beam on waterline	3.651 m
Displacement	12.628 t	Entrance angle	58.6 degr
Block coefficient	0.4449	Waterplane area	25.50 m ²
Prismatic coefficient	0.8121	Waterplane coefficient	0.8379
Vert. prismatic coefficient	0.5309	Waterplane center of floatation	4.577 m
Wetted surface area	31.79 m ²	Transverse moment of inertia	23.925 m ⁴
Longitudinal center of buoyancy	4.452 m	Longitudinal moment of inertia	117.310 m ⁴
Longitudinal center of buoyancy	-12.396 ‰		
Vertical center of buoyancy	0.607 m		
Total length of submerged body	8.336 m		
Total beam of submerged body	3.651 m		

Midship properties		Initial stability	
Midship section area	1.82 m ²	Transverse metacentric height	2.549 m
Midship coefficient	0.5477	Longitudinal metacentric height	10.129 m

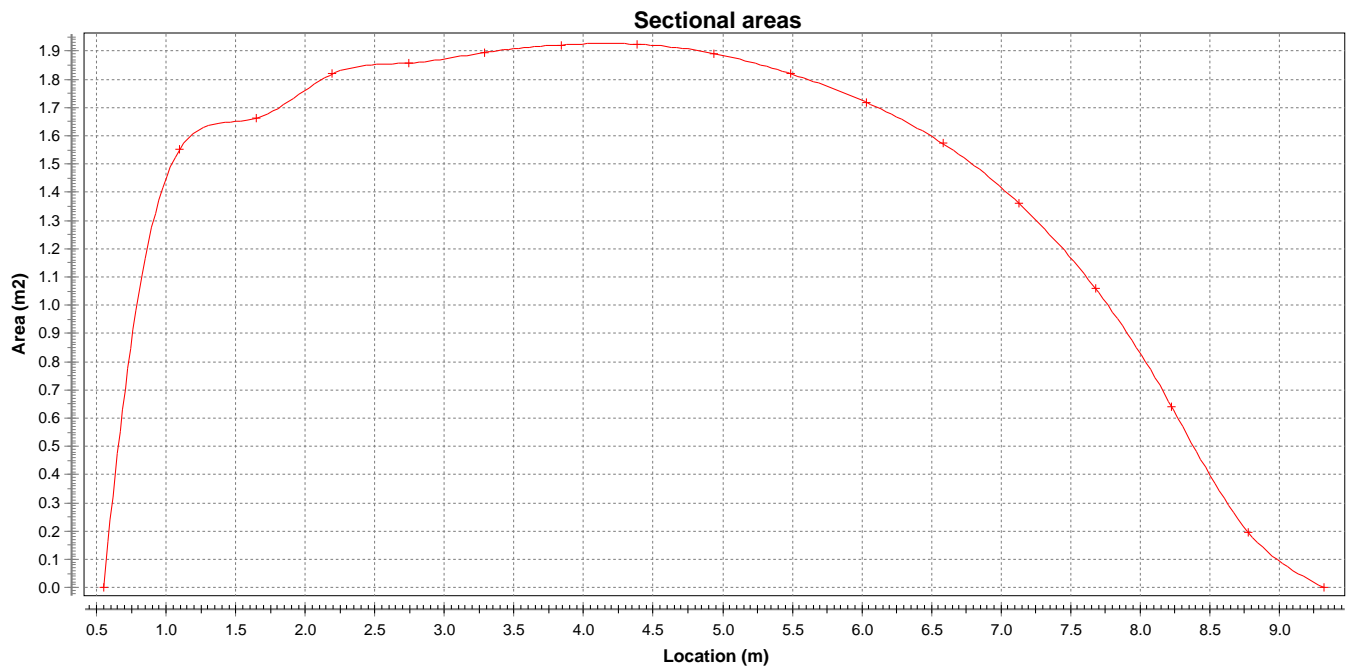
Lateral plane	
Lateral area	6.81 m ²
Longitudinal center of lateral resistance	4.800 m
Vertical center of lateral resistance	0.476 m

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

Location	Area m ²	Thickness m	Weight t	LCG m	TCG m	VCG m
Coque	53.12	0.000	0.000	4.731	0.000 (CL)	1.000
Coque blanche	33.04	0.000	0.000	4.976	0.000 (CL)	1.956
Coque dys	2.86	0.000	0.000	0.933	-0.241 (SB)	1.911
Passavant	3.16	0.000	0.000	5.932	0.000 (CL)	2.761
Plage arrière	3.62	0.000	0.000	1.086	0.000 (CL)	1.175
Pont	12.65	0.000	0.000	2.225	0.000 (CL)	1.417
Flanc int	7.60	0.000	0.000	3.078	0.000 (CL)	2.046
Super structure	45.70	0.000	0.000	4.512	0.000 (CL)	4.181
Vitre	19.83	0.000	0.000	3.890	0.000 (CL)	4.086
Vitre dys	0.91	0.000	0.000	1.845	0.696 (PS)	5.067
Pont dys	16.90	0.000	0.000	4.888	-0.207 (SB)	1.990
Flanc int dys	5.02	0.000	0.000	1.285	-0.238 (SB)	3.373
Cloison	30.41	0.000	0.000	6.740	0.196 (PS)	2.154
Cadre baie	7.94	0.000	0.000	2.257	0.000 (CL)	2.955
Cadre baie dys	0.74	0.000	0.000	2.092	0.379 (PS)	3.717
Aileron	3.09	0.000	0.000	0.339	0.000 (CL)	5.897
Montant escalier	1.18	0.000	0.000	2.019	0.614 (PS)	2.957
Marche	1.23	0.000	0.000	1.929	0.614 (PS)	2.904
Matelas fly	5.91	0.000	0.000	3.424	-0.018 (SB)	5.005
Fauteuil fly	4.02	0.000	0.000	1.159	-0.356 (SB)	5.169
Maincourante	5.71	0.000	0.000	6.565	0.000 (CL)	3.652

Location	Area m ²	Thickness m	Weight t	LCG m	TCG m	VCG m
Radar	2.50	0.000	0.000	0.400	0.000 (CL)	6.373
Poste fly	2.32	0.000	0.000	1.849	-0.609 (SB)	5.135
Total	269.47		0.000	0.000	0.000 (CL)	0.000

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
0.549	0.00	2.743	1.86	4.937	1.89	7.131	1.36	9.325	0.00
1.097	1.55	3.291	1.89	5.485	1.82	7.679	1.06		
1.646	1.66	3.840	1.92	6.034	1.72	8.228	0.64		
2.194	1.82	4.388	1.92	6.582	1.57	8.776	0.20		



NOTE 1: Draft (and all other vertical heights) is measured from base Z=0.000

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