

Hydrostatics report.

VAKA12XNFB

Designer	Iosif Gross		
Created by			
Comment			
Filename	VAKA12XNFB.fbm		
Design length	3.600 (m)	Midship location	1.800 (m)
Length over all	3.600 (m)	Relative water density	1.025
Design beam	0.603 (m)	Mean shell thickness	0.0070 (m)
Maximum beam	0.604 (m)	Appendage coefficient	1.0000
Design draught	0.180 (m)		

Trim: 0.000

Draught	Volume	Displ FW	Displ.	LCB	VCB	TCB	Aw	LCF	KMt	KMI	MCT	TpCm
(m)	(m ³)	(tonnes)	(tonnes)	(m)	(m)	(m)	(m ²)	(m)	(m)	(m)	(t*m/cm)	(t/cm)
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.000	0.000
0.020	0.009	0.009	0.009	1.844	0.012	0.000	0.472	1.806	0.980	8.71	0.000	0.005
0.040	0.022	0.022	0.022	1.798	0.024	0.000	0.672	1.754	0.483	8.71	0.001	0.007
0.060	0.037	0.037	0.038	1.774	0.036	0.000	0.802	1.739	0.330	8.08	0.001	0.008
0.080	0.055	0.055	0.056	1.761	0.048	0.000	0.901	1.731	0.264	7.46	0.001	0.009
0.100	0.074	0.074	0.076	1.751	0.060	0.000	0.982	1.722	0.231	6.93	0.001	0.010
0.120	0.095	0.095	0.097	1.743	0.071	0.000	1.052	1.709	0.214	6.46	0.002	0.011
0.140	0.117	0.117	0.119	1.735	0.083	0.000	1.113	1.694	0.207	6.05	0.002	0.011
0.160	0.140	0.140	0.143	1.726	0.094	0.000	1.169	1.676	0.205	5.69	0.002	0.012
0.180	0.164	0.164	0.168	1.717	0.106	0.000	1.221	1.656	0.207	5.36	0.002	0.013
0.200	0.189	0.189	0.193	1.707	0.117	0.000	1.263	1.643	0.211	4.97	0.003	0.013
0.220	0.214	0.214	0.220	1.699	0.129	0.000	1.300	1.637	0.216	4.59	0.003	0.013
0.240	0.241	0.241	0.247	1.692	0.140	0.000	1.336	1.631	0.223	4.29	0.003	0.014
0.260	0.268	0.268	0.274	1.685	0.152	0.000	1.373	1.625	0.231	4.04	0.003	0.014
0.280	0.296	0.296	0.303	1.679	0.163	0.000	1.410	1.620	0.240	3.83	0.003	0.014
0.300	0.324	0.324	0.332	1.673	0.175	0.000	1.447	1.616	0.249	3.65	0.003	0.015
0.320	0.353	0.353	0.362	1.668	0.186	0.000	1.484	1.611	0.259	3.49	0.003	0.015
0.340	0.384	0.384	0.393	1.663	0.198	0.000	1.521	1.607	0.269	3.36	0.003	0.016
0.360	0.414	0.414	0.425	1.659	0.209	0.000	1.558	1.604	0.280	3.25	0.004	0.016
0.380	0.446	0.446	0.457	1.655	0.221	0.000	1.596	1.600	0.291	3.14	0.004	0.016
0.400	0.478	0.478	0.490	1.651	0.232	0.000	1.633	1.597	0.302	3.05	0.004	0.017
0.420	0.511	0.511	0.524	1.647	0.244	0.000	1.671	1.594	0.313	2.97	0.004	0.017
0.440	0.545	0.545	0.559	1.644	0.256	0.000	1.709	1.591	0.325	2.90	0.004	0.018
0.460	0.580	0.580	0.594	1.640	0.268	0.000	1.747	1.589	0.337	2.83	0.004	0.018
0.480	0.615	0.615	0.631	1.637	0.279	0.000	1.785	1.587	0.348	2.77	0.004	0.018
0.500	0.651	0.651	0.668	1.634	0.291	0.000	1.823	1.585	0.360	2.72	0.005	0.019

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

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

Nomenclature

Draught	<i>Moulded draught, measured from baseline</i>
Volume	<i>Total displaced volume</i>
Displ FW	<i>Displacement fresh water</i>
Displ.	<i>Displacement</i>
LCB	<i>Longitudinal center of buoyancy, measured from the aft perpendicular at $X=0.0$</i>
VCB	<i>Vertical center of buoyancy</i>
TCB	<i>Transverse center of buoyancy</i>
Aw	<i>Waterplane area</i>
LCF	<i>Waterplane center of floatation, measured from the aft perpendicular at $X=0.0$</i>
KMt	<i>Transverse metacentric height</i>
KMI	<i>Longitudinal metacentric height</i>
MCT	<i>Moment to change trim one unit</i>
TpCm	<i>Weight to change the immersion with one unit</i>
