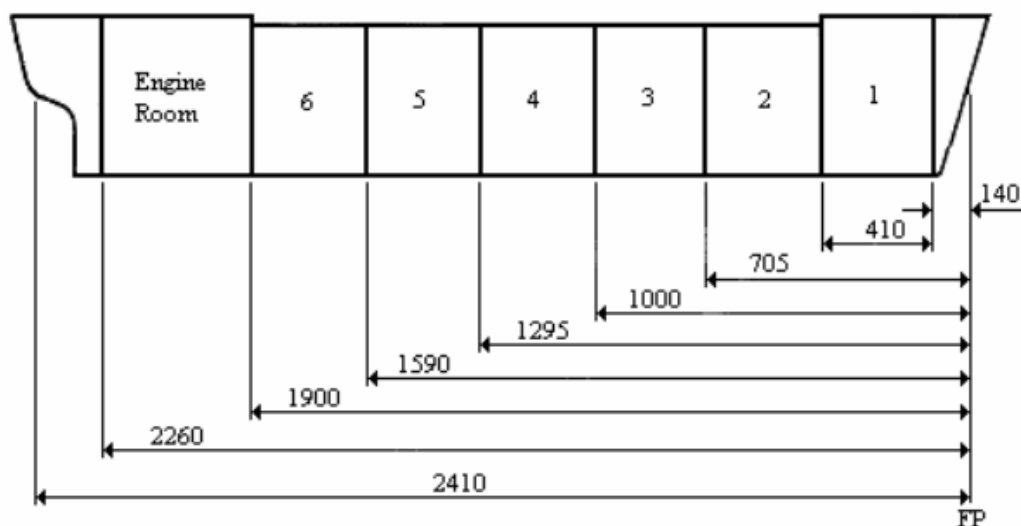


TABLE I - HYDROSTATIC INFORMATION
For 1/70th scale model supplied by Armfield (NA8-13)

Draft	Ship Mass in Fresh Water	KB	Ix	Iy	Volume	BMt	WaterPlane Area	BMI
mm	Kg	mm	m ⁴	m ⁴	m ³	m	m ²	m
5	2.139	2.39	0.003	0.119	0.002	1.500	0.494	59.500
10	4.742	5.14	0.004	0.137	0.005	0.800	0.541	27.400
15	7.528	7.95	0.004	0.15	0.008	0.500	0.563	18.750
20	10.376	10.5	0.004	0.16	0.01	0.400	0.577	16.000
25	13.28	13.2	0.005	0.167	0.013	0.385	0.588	12.846
30	16.203	15.8	0.005	0.174	0.016	0.313	0.597	10.875
35	19.223	18.4	0.005	0.18	0.019	0.263	0.605	9.474
40	22.267	21	0.005	0.185	0.022	0.227	0.611	8.409
45	25.406	23.7	0.005	0.188	0.025	0.200	0.615	7.520
50	28.419	26.2	0.005	0.195	0.028	0.179	0.623	6.964
55	31.551	28.8	0.005	0.201	0.032	0.156	0.638	6.281
60	34.634	31.4	0.005	0.203	0.035	0.143	0.631	5.800
65	37.886	34	0.005	0.21	0.038	0.132	0.638	5.526
70	41.067	36.6	0.005	0.215	0.041	0.122	0.644	5.244
75	44.423	39.2	0.005	0.221	0.045	0.111	0.65	4.911
80	47.417	41.8	0.005	0.225	0.048	0.104	0.654	4.688
85	50.718	44.5	0.005	0.233	0.051	0.098	0.663	4.569
90	54.018	47.1	0.005	0.239	0.054	0.093	0.667	4.426
95	57.436	49.8	0.005	0.246	0.058	0.086	0.675	4.241
100	60.68	52.4	0.005	0.253	0.061	0.082	0.681	4.148
105	64.136	55.1	0.005	0.26	0.064	0.078	0.687	4.063
110	67.522	57.7	0.006	0.266	0.068	0.088	0.693	3.912
115	71.017	60.4	0.006	0.273	0.071	0.085	0.7	3.845
120	74.528	63.1	0.006	0.279	0.075	0.080	0.705	3.720
125	78.041	65.8	0.006	0.284	0.078	0.077	0.71	3.641
130	81.562	68.5	0.006	0.289	0.082	0.073	0.714	3.524

LBP = 2410 mm

NOMINAL BULKHEAD POSITIONS
For 1/70th scale model supplied by Armfield (NA8-13)
Dimensions in mm



**TABLE II - LOADING CONDITION
(For full size General Cargo Vessel)**

SHIP CONDITION	=	SHIP MASS IN TONNES
Lightship	=	6703
Heavy ballast departure	=	16580
Heavy ballast arrival	=	14790
Light ballast departure	=	12850
Light ballast arrival	=	11060
Deep loaded departure	=	28215
Deep loaded arrival	=	27263

**TABLE III – CROSS CURVES OF STABILITY
For 1/70th scale model supplied by Armfield (NA8-13)**

	Assumed KG is 60.96 mm			GZ in mm			Δ in kg in fresh	
	water							
GZ at 5°	66.82	18.49	9.85	7.34	6.47	6.34	6.80	6.91
Δ	3.258	16.660	31.796	47.541	63.667	80.349	97.619	115.118
GZ at 10°	77.23	36.11	19.84	14.64	12.96	12.80	13.67	12.69
Δ	4.672	16.738	31.893	47.776	64.108	80.980	98.507	114.651
GZ at 15°	79.06	49.70	29.95	22.15	19.63	19.54	19.96	18.02
Δ	6.190	17.173	32.080	48.189	64.884	82.105	99.514	114.336
GZ at 30°	74.96	62.97	53.62	46.13	41.25	37.61	34.51	31.39
Δ	10.970	21.272	34.774	51.080	69.104	86.299	101.570	114.069
GZ at 45°	69.68	67.92	66.10	61.85	56.15	49.84	44.42	40.65
Δ	16.709	28.185	42.305	57.575	73.423	88.979	102.894	114.238
GZ at 60°	70.65	70.48	67.58	63.97	59.82	55.33	50.73	46.79
Δ	24.994	37.241	50.537	64.366	78.121	91.391	103.921	115.084
GZ at 75°	63.93	63.08	61.00	58.88	56.77	54.62	52.43	50.25
Δ	33.212	45.055	57.809	70.670	83.167	95.112	106.381	116.755
GZ at 90°	50.92	50.89	50.52	50.12	50.51	50.66	50.50	50.33
Δ	40.226	51.965	64.319	76.755	88.990	100.288	110.590	120.068

TABLE IV – TABLE OF OFFSETS
For 1/70th scale model supplied by Armfield (NA8-13)
Dimensions in mm.

Length between perpendiculars	2410
Station interval	239.5
Breadth	326
Waterline spacing	14.3
Length of stern	85
Stern interval	29.8

Station Number	Deck Height	Deck Half Breadth	Station Number	Deck Height	Deck Half Breadth
	mm	mm		mm	mm
A.P.	243	99	5(☒)	191	163
0.25	241	122	5.5	191	163
0.5	240	138	6	191	163
0.75	239	149	6.5	191	163
1	238	155	7	191	163
1.5	235	163	7.5	191	163
2	234	163	8	192	158
2.5	191	163	8.5	192	148
3	191	163	9	193	128
3.5	191	163	9.25	229	112
4	191	163	9.5	234	111
4.5	191	163	9.75	238	90
5(☒)	191	163	F.P.	243	56

☒ Denotes amidships at Station number 5

TABLE V – TABLE OF OFFSETS
For 1/70th scale model supplied by Armfield (NA8-13)

Waterline Half Breadths
1/70th Scale Model

Station Number	Draft (mm)														
	0	5	10	20	30	40	50	60	70	80	90	100	110	120	130
A.P.	0	0	0	0	0	0	0	0	0	0	17	34	50	63	74
0.25	0	6	3	2	1	1	2	2	6	20	40	58	74	89	99
0.5	0	10	13	18	22	26	30	35	43	53	65	80	95	107	118
0.75	0	16	23	34	42	49	56	63	71	80	90	101	113	123	132
1	0	25	36	52	60	72	80	88	96	104	112	120	128	135	142
1.5	0	50	68	88	102	111	120	126	131	136	141	145	148	152	155
2	0	86	104	123	135	141	146	150	153	155	156	158	159	160	160
2.5	0	119	133	146	158	161	163	163	163	163	163	163	163	163	163
3	0	143	152	159	163	163	163	163	163	163	163	163	163	163	163
3.5	0	155	160	163	163	163	163	163	163	163	163	163	163	163	163
4	0	155	163	163	163	163	163	163	163	163	163	163	163	163	163
4.5	0	155	163	163	163	163	163	163	163	163	163	163	163	163	163
5 (⌘)	0	155	163	163	163	163	163	163	163	163	163	163	163	163	163
5.5	0	155	163	163	163	163	163	163	163	163	163	163	163	163	163
6	0	155	163	163	163	163	163	163	163	163	163	163	163	163	163
6.5	0	155	163	163	163	163	163	163	163	163	163	163	163	163	163
7	0	152	158	163	163	163	163	163	163	163	163	163	163	163	163
7.5	0	143	151	158	163	163	163	163	163	163	163	163	163	163	163
8	0	122	133	144	150	153	155	156	156	157	157	157	163	163	158
8.5	0	84	99	116	125	131	135	138	140	142	144	144	146	147	148
9	0	41	55	72	83	92	98	103	107	111	114	114	120	123	126
9.25	0	24	35	49	59	67	73	78	82	86	91	95	99	104	109
9.5	0	10	17	27	35	41	46	50	54	58	63	67	73	79	86
9.75	0	0	1	7	11	15	18	22	25	28	32	36	42	49	57
F.P.	0	0	0	0	0	0	0	0	0	0	0	0	6	11	17

⌘ Denotes amidships at Station number 5

HYDROSTATIC INFORMATION
For 1/70th scale model used in worked examples
(Refer to Table 1 in Appendix 1 for current production model)

DRAFT mm	SHIP MASS IN FRESH WATER kg	KB mm	BM _T mm	WATERPLANE AREA mm ²	BM _L m
14.3	6.611	7.8	571.8	0.5352	21.056
28.6	14.516	15.3	286.6	0.5703	11.219
42.9	22.845	22.7	191.9	0.5905	7.776
57.2	31.375	30.2	144.8	0.6045	6.010
71.5	40.113	37.6	116.2	0.6152	4.923
85.8	48.957	45.0	97.2	0.6242	4.191
100.1	57.957	52.4	83.6	0.6327	3.676
114.4	67.054	59.9	73.5		3.329
128.7	76.344	67.4	65.7	0.6551	3.100
143.0	85.783	75.0	59.6	0.6682	2.927
157.2	95.458	82.5	54.7	0.6820	2.793
171.5	105.274	90.2	50.2	0.6942	2.661
185.8	115.289	97.9	47.4	0.7051	2.535

LBP = 2395 mm