

CONTENTS

1. PRINCIPAL PARTICULARS	2
2. SUMMARY TABLE FOR TANK CAPACITY & C.G.	3
3. HYDROSTATIC TABLE	5
4. INTACT STABILITY	14
Summary of loading conditions.....	14
IMO 749.....	16
HSCC (results only)	108
5. DAMAGE STABILITY	119
Solas 90	119
HSCC (results only).....	213

1. PRINCIPAL PARTICULARS

NAME OF VESSEL:	NATIONAL STAR
CLASSIFICATION:	BUREAU VERITAS
TYPE OF VESSEL:	RO-RO PASSENGER
LENGTH OVER ALL:	103,94 m
LENGTH BETWEEN PERPENDICULARS:	91,72 m
BREADTH (MOLDED):	32,2 m
DEPTH (MOLDED) TO MAIN DECK:	9,57 m
DESIGN DRAFT (MOLDED):	4,740 m
SCANTLING DRAFT (MOLDED):	5,469 m
GROSS TONNAGE (INTERNATIONAL):	17096
NET TONNAGE (INTERNATIONAL):	5129
TOTAL BREAK HORSE POWER:	16000 kW
LIGHT SHIP:	3478,7 t
DEADWEIGHT AT SUMMER LOAD:	1650,5 t
VEHICLES (WITHOUT HOISTABLE):	568 L.M. TRAILER + 122 CARS
VEHICLES (WITHOUT HOISTABLE):	240 L.M. TRAILER + 274 CARS
VEHICLES (CAR ONLY CONDITION):	328 CARS
PASSENGERS (SUMMER):	2225
PASSENGERS (WINTER):	1475
PASSENGER BERTH:	92
COMPLEMENT:	65 PERSONS
SERVICE SPEED:	21 knots

2. SUMMARY TABLE FOR TANK CAPACITY & C.G.

FUEL OIL TANKS (SG = 0.980 tonnes/cu.m 98 % full)							
Compartment	Frames	Volume (m ³)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	IT (m ⁴)
H.F.O.SERV.TK(P)	62-65	20.944	20.115	48.4	-8.725	4.289	3
H.F.O.SERV.TK(S)	62-65	20.944	20.115	48.4	8.725	4.289	3
H.F.O.SETT.TK(P)	59-62	20.945	20.115	46	-8.725	4.289	3
H.F.O.SETT.TK(S)	59-62	20.945	20.115	46	8.725	4.289	3
NO.1 H.F.O.STOR.TK(P)	62-68	34.569	33.2	49.6	-11.74	1.274	10
NO.1 H.F.O.STOR.TK(S)	62-68	34.569	33.2	49.6	11.74	1.274	10
NO.2 H.F.O.STOR.TK(P)	65-75	96.365	92.549	53.581	-9.241	4.288	31
NO.2 H.F.O.STOR.TK(S)	65-75	96.365	92.549	53.581	9.241	4.288	31
Total		345.64	331.959	51.238	0	3.685	

DIESEL OIL TANKS (SG = 0.900 tonnes/cu.m 98 % full)							
Compartment	Frames	Volume (m ³)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	IT (m ⁴)
DO SERV TK(P)	21-25	45.762	40.362	16.01	-8.309	8.038	35
DO SERV TK(S)	34-39	38.683	34.118	26.802	7.395	8.07	14
Total		84.44	74.48	20.954	-1.116	8.052	

LUBRICANT OIL TANKS (SG = 0.900 tonnes/cu.m 98 % full)							
Compartment	Frames	Volume (m ³)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	IT (m ⁴)
ME LO CIRC TK (P)	47-56	10.584	9.335	38.8	-11.74	1	1
ME LO CIRC TK (S)	47-56	10.584	9.335	38.8	11.74	1	1
Total		21.16	18.67	38.8	0	1	

FRESH WATER TANKS (SG = 1.000 tonnes/cu.m 100 % full)							
Compartment	Frames	Volume (m ³)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	IT (m ⁴)
FW TK (P)	82-90	62.293	62.293	66.271	-9.545	4.394	22
FW TK (S)	82-90	62.293	62.293	66.271	9.545	4.394	22
Total		124.58	124.586	66.271	0	4.394	

WATER BALLAST TANKS (SG = 1.025 tonnes/cu.m 100 % full)							
Compartment	Frames	Volume (m ³)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	IT (m ⁴)
FP TK (P)	113-125	95.683	98.075	90.229	-11.52	5.626	152
FP TK (S)	113-125	95.683	98.075	90.229	11.52	5.626	152
HEELING TK (P)	75-84	72.702	74.52	61.113	- 14.291	4.352	20
HEELING TK (S)	75-84	72.702	74.52	61.113	14.291	4.352	20
NO.1 WB TK(P)	90-102	74.75	76.619	74.174	-11.74	1.441	61
NO.1 WB TK(S)	90-102	74.75	76.619	74.174	11.74	1.441	61
NO.2 WB TK(P)	75-90	128.745	131.963	63.258	-11.74	1.458	240
NO.2 WB TK(S)	75-90	128.745	131.963	63.258	11.74	1.458	240
NO.5 WB TK(S)	4-ΔEK	131.517	134.805	4.839	10.887	8.087	456
NO.5 WB TK(P)	4-ΔEK	131.517	134.805	4.839	- 10.887	8.087	456
Total		1006.78	1031.963	54.433	0	4.398	

MISCELLANEOUS TANKS					
Compartment	Frames	Volume (m ³)	LCG (m)	TCG (m)	VCG (m)
A/E LO STOR TK (P)	0-0	16.545	13.604	-7.77	8.175
A/E LO STOR TK (S)	0-0	16.545	13.604	7.77	8.175
BILGE W DRAIN TK (P)	65-71	15.881	51.967	- 14.126	1.647
BILGE W DRAIN TK (S)	65-71	15.881	51.967	14.126	1.647
DIRTY OIL TK(P)	56-59	8.658	43.6	- 11.749	0.763
DIRTY OIL TK(S)	56-59	8.658	43.6	11.749	0.763
HFO OVFL TK (P)	59-62	19.93	46	- 11.749	1.288
HFO OVFL TK (S)	59-62	19.93	46	11.749	1.288
LO SLUDGE TK(P)	42-47	5.2	33.263	- 13.631	1.03
LO SLUDGE TK(S)	42-47	5.2	33.263	13.631	1.03
SEWAGE TK (P)	68-71	17.24	53.199	-11.74	1.277
SEWAGE TK (S)	68-71	17.24	53.199	11.74	1.277
UP BILGE W TK (P)	16-21	38.463	12.437	- 14.395	7.902
UP BILGE W TK (S)	16-21	38.463	12.437	14.395	7.902
Total		243.83	0.000	0	0.000

3. HYDROSTATIC TABLE

Draft	(m)	:	0.5	0.6	0.7	0.8	0.9	1
Displt	(t)	:	175.06	226.89	282.88	342.64	405.91	472.5
LCB	(m)	:	48.93	48.864	48.792	48.725	48.662	48.603
VCB	(m)	:	0.291	0.35	0.41	0.469	0.529	0.588
WPA	(m^2)	:	480.9	522.88	561.35	596.4	629.45	660.39
LCF	(m)	:	48.718	48.564	48.451	48.364	48.282	48.202
KML	(m)	:	1189.355	1015.884	886.455	786.052	705.276	639.368
KMT	(m)	:	393.617	330.675	285.141	250.465	223.486	201.737
WSA	(m^2)	:	527.88	583.37	636.37	686.97	736.37	784.45
TPC	(t/cm)	:	4.96	5.4	5.79	6.15	6.5	6.82
MTC	(t- m/cm)	:	22.7	25.12	27.33	29.35	31.19	32.91
Displt	(t)	:	175.06	226.89	282.88	342.64	405.91	472.5
LCB	(m)	:	48.93	48.864	48.792	48.725	48.662	48.603
TCB	(m)	:	0	0	0	0	0	0
VCB	(m)	:	0.291	0.35	0.41	0.469	0.529	0.588
WPA	(m^2)	:	480.9	522.88	561.35	596.4	629.45	660.39
LCF	(m)	:	48.718	48.564	48.451	48.364	48.282	48.202
TCF	(m)	:	0	0	0	0	0	0
BML	(m)	:	1189.064	1015.534	886.046	785.583	704.748	638.78
BMT	(m)	:	393.326	330.324	284.731	249.996	222.957	201.149
KML	(m)	:	1189.355	1015.884	886.455	786.052	705.276	639.368
KMT	(m)	:	393.617	330.675	285.141	250.465	223.486	201.737
WSA	(m^2)	:	527.88	583.37	636.37	686.97	736.37	784.45
TPC	(t/cm)	:	4.96	5.4	5.79	6.15	6.5	6.82
MTC	(t- m/cm)	:	22.7	25.12	27.33	29.35	31.19	32.91
CB		:	0.115	0.124	0.133	0.141	0.148	0.155
CM		:	0.192	0.205	0.217	0.229	0.239	0.249
CP		:	0.599	0.605	0.61	0.615	0.619	0.622
CW		:	0.163	0.177	0.19	0.202	0.213	0.224
CB incl.shell		:	0.115	0.124	0.133	0.141	0.148	0.155
Vol.(mld)	(m^3)	:	169.63	219.86	274.11	332.02	393.32	457.85
IL	(m^4)	:	201706.5	223271.2	242874.9	260829.3	277194.2	292466.9
IT	(m^4)	:	66721.7	72623.8	78048	83003.7	87694.4	92096.7
Lw	(m)	:	88.049	88.305	88.51	88.716	88.922	89.127
Bw	(m)	:	27.681	28.014	28.303	28.562	28.821	29.052
CBw		:	0.139	0.148	0.156	0.164	0.171	0.177
CMw		:	0.223	0.236	0.247	0.258	0.267	0.276
CPw		:	0.624	0.628	0.632	0.635	0.638	0.64
CWw		:	0.197	0.211	0.224	0.235	0.246	0.255

Draft	(m)	:	1.1	1.2	1.3	1.4	1.5	1.6
Displt	(t)	:	542.13	614.6	689.8	767.54	847.66	929.98
LCB	(m)	:	48.548	48.5	48.456	48.417	48.382	48.352
VCB	(m)	:	0.647	0.707	0.766	0.825	0.884	0.943
WPA	(m ²)	:	688.71	715.74	741.43	764.95	787.15	808.3
LCF	(m)	:	48.156	48.119	48.087	48.055	48.042	48.037
KML	(m)	:	583.651	536.755	496.094	460.494	429.095	401.135
KMT	(m)	:	183.659	168.635	155.91	144.814	135.169	126.745
WSA	(m ²)	:	830.99	876.84	922.13	966.2	1009.7	1052.84
TPC	(t/cm)	:	7.11	7.39	7.65	7.89	8.12	8.34
MTC	(t- m/cm)	:	34.46	35.92	37.25	38.47	39.57	40.58
Displt	(t)	:	542.13	614.6	689.8	767.54	847.66	929.98
LCB	(m)	:	48.548	48.5	48.456	48.417	48.382	48.352
TCB	(m)	:	0	0	0	0	0	0
VCB	(m)	:	0.647	0.707	0.766	0.825	0.884	0.943
WPA	(m ²)	:	688.71	715.74	741.43	764.95	787.15	808.3
LCF	(m)	:	48.156	48.119	48.087	48.055	48.042	48.037
TCF	(m)	:	0	0	0	0	0	0
BML	(m)	:	583.003	536.048	495.328	459.669	428.211	400.192
BMT	(m)	:	183.012	167.928	155.144	143.989	134.285	125.802
KML	(m)	:	583.651	536.755	496.094	460.494	429.095	401.135
KMT	(m)	:	183.659	168.635	155.91	144.814	135.169	126.745
WSA	(m ²)	:	830.99	876.84	922.13	966.2	1009.7	1052.84
TPC	(t/cm)	:	7.11	7.39	7.65	7.89	8.12	8.34
MTC	(t- m/cm)	:	34.46	35.92	37.25	38.47	39.57	40.58
CB		:	0.162	0.168	0.174	0.18	0.185	0.191
CM		:	0.259	0.268	0.276	0.284	0.292	0.299
CP		:	0.625	0.628	0.631	0.633	0.635	0.637
CW		:	0.233	0.242	0.251	0.259	0.267	0.274
CB incl.shell		:	0.162	0.168	0.174	0.18	0.185	0.191
Vol.(mld)	(m ³)	:	525.32	595.55	668.41	743.74	821.37	901.15
IL	(m ⁴)	:	306260.9	319242	331083.9	341873.7	351721.6	360631.6
IT	(m ⁴)	:	96139	100009	103700.5	107090.3	110298	113366.3
Lw	(m)	:	89.333	89.538	89.675	89.803	89.932	90.06
Bw	(m)	:	29.261	29.47	29.673	29.844	30.014	30.185
CBw		:	0.183	0.188	0.193	0.198	0.203	0.207
CMw		:	0.285	0.292	0.3	0.307	0.313	0.319
CPw		:	0.642	0.643	0.645	0.646	0.648	0.649
CWw		:	0.263	0.271	0.279	0.285	0.292	0.297

Draft	(m)	:	1.7	1.8	1.9	2	2.1	2.2
Displt	(t)	:	1014.45	1100.89	1189.17	1279.22	1370.98	1464.35
LCB	(m)	:	48.326	48.302	48.282	48.265	48.249	48.234
VCB	(m)	:	1.002	1.061	1.119	1.178	1.236	1.295
WPA	(m^2)	:	828.28	846.72	864.1	880.96	897.13	912.17
LCF	(m)	:	48.033	48.032	48.038	48.034	48.022	48
KML	(m)	:	376.037	353.463	332.861	314.493	297.97	283.022
KMT	(m)	:	119.29	112.583	106.573	101.206	96.362	91.92
WSA	(m^2)	:	1095.57	1137.64	1179.52	1221.13	1262.45	1303.26
TPC	(t/cm)	:	8.55	8.74	8.92	9.09	9.26	9.41
MTC	(t- m/cm)	:	41.48	42.3	43.01	43.7	44.35	44.98
Displt	(t)	:	1014.45	1100.89	1189.17	1279.22	1370.98	1464.35
LCB	(m)	:	48.326	48.302	48.282	48.265	48.249	48.234
TCB	(m)	:	0	0	0	0	0	0
VCB	(m)	:	1.002	1.061	1.119	1.178	1.236	1.295
WPA	(m^2)	:	828.28	846.72	864.1	880.96	897.13	912.17
LCF	(m)	:	48.033	48.032	48.038	48.034	48.022	48
TCF	(m)	:	0	0	0	0	0	0
BML	(m)	:	375.035	352.402	331.741	313.315	296.734	281.727
BMT	(m)	:	118.287	111.523	105.453	100.028	95.126	90.625
KML	(m)	:	376.037	353.463	332.861	314.493	297.97	283.022
KMT	(m)	:	119.29	112.583	106.573	101.206	96.362	91.92
WSA	(m^2)	:	1095.57	1137.64	1179.52	1221.13	1262.45	1303.26
TPC	(t/cm)	:	8.55	8.74	8.92	9.09	9.26	9.41
MTC	(t- m/cm)	:	41.48	42.3	43.01	43.7	44.35	44.98
CB		:	0.196	0.201	0.205	0.21	0.214	0.218
CM		:	0.307	0.313	0.32	0.326	0.333	0.339
CP		:	0.639	0.64	0.642	0.643	0.644	0.645
CW		:	0.28	0.287	0.293	0.298	0.304	0.309
CB incl.shell		:	0.196	0.201	0.205	0.21	0.214	0.218
Vol.(mld)	(m^3)	:	982.99	1066.75	1152.29	1239.56	1328.47	1418.94
IL	(m^4)	:	368656.8	375925.7	382263.3	388372.2	394202.2	399754.6
IT	(m^4)	:	116275.7	118967.1	121513.1	123989.9	126372.5	128592
Lw	(m)	:	90.189	90.317	90.446	90.574	90.703	90.831
Bw	(m)	:	30.343	30.482	30.622	30.761	30.89	31.001
CBw		:	0.211	0.215	0.219	0.222	0.226	0.229
CMw		:	0.325	0.331	0.337	0.342	0.347	0.352
CPw		:	0.649	0.65	0.651	0.651	0.651	0.651
CWw		:	0.303	0.308	0.312	0.316	0.32	0.324

Draft	(m)	:	2.3	2.4	2.5	2.6	2.7	2.8
Displt	(t)	:	1559.23	1655.57	1753.34	1852.5	1952.97	2054.63
LCB	(m)	:	48.219	48.204	48.187	48.169	48.149	48.128
VCB	(m)	:	1.353	1.411	1.469	1.527	1.584	1.642
WPA	(m ²)	:	926.56	940.53	954.25	967.08	979.38	991.3
LCF	(m)	:	47.969	47.928	47.881	47.824	47.756	47.675
KML	(m)	:	269.372	256.92	245.632	235.401	225.943	217.151
KMT	(m)	:	87.873	84.188	80.832	77.705	74.812	72.141
WSA	(m ²)	:	1343.83	1384.24	1424.57	1464.52	1504.31	1544.01
TPC	(t/cm)	:	9.56	9.71	9.85	9.98	10.11	10.23
MTC	(t- m/cm)	:	45.56	46.12	46.67	47.24	47.77	48.28
Displt	(t)	:	1559.23	1655.57	1753.34	1852.5	1952.97	2054.63
LCB	(m)	:	48.219	48.204	48.187	48.169	48.149	48.128
TCB	(m)	:	0	0	0	0	0	0
VCB	(m)	:	1.353	1.411	1.469	1.527	1.584	1.642
WPA	(m ²)	:	926.56	940.53	954.25	967.08	979.38	991.3
LCF	(m)	:	47.969	47.928	47.881	47.824	47.756	47.675
TCF	(m)	:	0	0	0	0	0	0
BML	(m)	:	268.019	255.51	244.163	233.875	224.358	215.509
BMT	(m)	:	86.52	82.778	79.363	76.179	73.227	70.499
KML	(m)	:	269.372	256.92	245.632	235.401	225.943	217.151
KMT	(m)	:	87.873	84.188	80.832	77.705	74.812	72.141
WSA	(m ²)	:	1343.83	1384.24	1424.57	1464.52	1504.31	1544.01
TPC	(t/cm)	:	9.56	9.71	9.85	9.98	10.11	10.23
MTC	(t- m/cm)	:	45.56	46.12	46.67	47.24	47.77	48.28
CB		:	0.222	0.226	0.23	0.234	0.237	0.241
CM		:	0.344	0.35	0.355	0.36	0.366	0.37
CP		:	0.646	0.647	0.648	0.648	0.649	0.65
CW		:	0.314	0.318	0.323	0.327	0.332	0.336
CB incl.shell		:	0.222	0.226	0.23	0.234	0.237	0.241
Vol.(mld)	(m ³)	:	1510.88	1604.24	1698.98	1795.05	1892.41	1990.92
IL	(m ⁴)	:	404946.3	409898	414827	419817.4	424578	429060.2
IT	(m ⁴)	:	130722	132795	134836.1	136744.7	138576.6	140357.3
Lw	(m)	:	90.96	91.088	91.217	91.303	91.357	91.411
Bw	(m)	:	31.113	31.224	31.334	31.419	31.504	31.589
CBw		:	0.232	0.235	0.238	0.241	0.244	0.246
CMw		:	0.356	0.361	0.365	0.369	0.374	0.378
CPw		:	0.651	0.651	0.651	0.651	0.652	0.652
CWw		:	0.327	0.331	0.334	0.337	0.34	0.343

Draft	(m)	:	2.9	3	3.1	3.2	3.3	3.4
Displt	(t)	:	2157.54	2261.65	2366.89	2473.19	2580.52	2689.12
LCB	(m)	:	48.104	48.078	48.05	48.018	47.985	47.944
VCB	(m)	:	1.7	1.757	1.815	1.872	1.929	1.987
WPA	(m^2)	:	1003.08	1014.44	1024.99	1035.09	1044.94	1057.92
LCF	(m)	:	47.583	47.487	47.382	47.268	47.146	46.875
KML	(m)	:	209.056	201.593	194.642	188.061	181.9	178.874
KMT	(m)	:	69.679	67.384	65.212	63.178	61.278	59.674
WSA	(m^2)	:	1583.67	1623.22	1662.55	1701.83	1741.11	1784.22
TPC	(t/cm)	:	10.35	10.47	10.58	10.68	10.78	10.92
MTC	(t- m/cm)	:	48.78	49.28	49.76	50.21	50.63	51.86
Displt	(t)	:	2157.54	2261.65	2366.89	2473.19	2580.52	2689.12
LCB	(m)	:	48.104	48.078	48.05	48.018	47.985	47.944
TCB	(m)	:	0	0	0	0	0	0
VCB	(m)	:	1.7	1.757	1.815	1.872	1.929	1.987
WPA	(m^2)	:	1003.08	1014.44	1024.99	1035.09	1044.94	1057.92
LCF	(m)	:	47.583	47.487	47.382	47.268	47.146	46.875
TCF	(m)	:	0	0	0	0	0	0
BML	(m)	:	207.356	199.836	192.828	186.189	179.971	176.887
BMT	(m)	:	67.979	65.626	63.398	61.305	59.349	57.687
KML	(m)	:	209.056	201.593	194.642	188.061	181.9	178.874
KMT	(m)	:	69.679	67.384	65.212	63.178	61.278	59.674
WSA	(m^2)	:	1583.67	1623.22	1662.55	1701.83	1741.11	1784.22
TPC	(t/cm)	:	10.35	10.47	10.58	10.68	10.78	10.92
MTC	(t- m/cm)	:	48.78	49.28	49.76	50.21	50.63	51.86
CB		:	0.244	0.247	0.251	0.254	0.257	0.259
CM		:	0.375	0.38	0.384	0.388	0.392	0.396
CP		:	0.651	0.652	0.652	0.653	0.654	0.655
CW		:	0.34	0.343	0.347	0.35	0.354	0.358
CB incl.shell		:	0.244	0.247	0.251	0.254	0.257	0.259
Vol.(mld)	(m^3)	:	2090.64	2191.52	2293.5	2396.5	2500.51	2605.74
IL	(m^4)	:	433505.9	437943.9	442250	446202.7	450017.6	460922.5
IT	(m^4)	:	142120.2	143821.5	145402.3	146918.8	148402	150317.7
Lw	(m)	:	91.465	91.519	91.573	91.627	91.681	96.038
Bw	(m)	:	31.674	31.746	31.806	31.865	31.924	31.983
CBw		:	0.249	0.251	0.254	0.257	0.259	0.25
CMw		:	0.381	0.385	0.389	0.392	0.396	0.399
CPw		:	0.653	0.653	0.653	0.654	0.654	0.626
CWw		:	0.346	0.349	0.352	0.355	0.357	0.344

Draft	(m)	:	3.5	3.6	3.7	3.8	3.9	4
Displt	(t)	:	2798.85	2909.61	3021.34	3134.03	3247.66	3362.2
LCB	(m)	:	47.898	47.849	47.795	47.739	47.678	47.614
VCB	(m)	:	2.044	2.101	2.159	2.216	2.273	2.33
WPA	(m ²)	:	1068.36	1078.03	1087.33	1096.51	1105.52	1114.25
LCF	(m)	:	46.689	46.504	46.316	46.115	45.898	45.673
KML	(m)	:	174.336	169.875	165.575	161.5	157.691	154.18
KMT	(m)	:	58.044	56.481	55.002	53.61	52.297	51.049
WSA	(m ²)	:	1825.45	1866.58	1907.82	1949.37	1991.25	2033.33
TPC	(t/cm)	:	11.03	11.13	11.22	11.32	11.41	11.5
MTC	(t- m/cm)	:	52.58	53.22	53.83	54.43	55.03	55.66
Displt	(t)	:	2798.85	2909.61	3021.34	3134.03	3247.66	3362.2
LCB	(m)	:	47.898	47.849	47.795	47.739	47.678	47.614
TCB	(m)	:	0	0	0	0	0	0
VCB	(m)	:	2.044	2.101	2.159	2.216	2.273	2.33
WPA	(m ²)	:	1068.36	1078.03	1087.33	1096.51	1105.52	1114.25
LCF	(m)	:	46.689	46.504	46.316	46.115	45.898	45.673
TCF	(m)	:	0	0	0	0	0	0
BML	(m)	:	172.292	167.774	163.416	159.284	155.418	151.85
BMT	(m)	:	56	54.379	52.843	51.394	50.024	48.718
KML	(m)	:	174.336	169.875	165.575	161.5	157.691	154.18
KMT	(m)	:	58.044	56.481	55.002	53.61	52.297	51.049
WSA	(m ²)	:	1825.45	1866.58	1907.82	1949.37	1991.25	2033.33
TPC	(t/cm)	:	11.03	11.13	11.22	11.32	11.41	11.5
MTC	(t- m/cm)	:	52.58	53.22	53.83	54.43	55.03	55.66
CB		:	0.262	0.265	0.268	0.271	0.273	0.276
CM		:	0.4	0.404	0.407	0.411	0.414	0.417
CP		:	0.656	0.657	0.658	0.659	0.66	0.661
CW		:	0.362	0.365	0.368	0.371	0.374	0.377
CB incl.shell		:	0.262	0.265	0.268	0.271	0.273	0.276
Vol.(mld)	(m ³)	:	2712.06	2819.39	2927.65	3036.85	3146.95	3257.95
IL	(m ⁴)	:	467265.6	473019.3	478425.6	483721.8	489094.2	494718.4
IT	(m ⁴)	:	151874.2	153315.8	154705.9	156077	157423.7	158721.9
Lw	(m)	:	96.14	96.242	96.343	96.445	96.547	96.648
Bw	(m)	:	32.024	32.058	32.093	32.128	32.151	32.164
CBw		:	0.252	0.254	0.256	0.258	0.26	0.262
CMw		:	0.402	0.405	0.409	0.411	0.414	0.417
CPw		:	0.626	0.626	0.626	0.627	0.627	0.628
CWw		:	0.347	0.349	0.352	0.354	0.356	0.358

Draft	(m)	:	4.1	4.2	4.3	4.4	4.5	4.6
Displt	(t)	:	3477.62	3593.85	3710.87	3828.6	3947.02	4066.12
LCB	(m)	:	47.545	47.473	47.397	47.316	47.231	47.143
VCB	(m)	:	2.387	2.444	2.501	2.558	2.615	2.672
WPA	(m^2)	:	1122.42	1130.15	1137.63	1144.17	1150.74	1156.95
LCF	(m)	:	45.435	45.181	44.92	44.632	44.355	44.069
KML	(m)	:	150.712	147.265	143.927	140.334	136.97	133.661
KMT	(m)	:	49.85	48.702	47.611	46.544	45.538	44.574
WSA	(m^2)	:	2075.63	2118.24	2161.07	2204.48	2247.95	2291.62
TPC	(t/cm)	:	11.58	11.66	11.74	11.81	11.88	11.94
MTC	(t- m/cm)	:	56.24	56.74	57.22	57.51	57.82	58.07
Displt	(t)	:	3477.62	3593.85	3710.87	3828.6	3947.02	4066.12
LCB	(m)	:	47.545	47.473	47.397	47.316	47.231	47.143
TCB	(m)	:	0	0	0	0	0	0
VCB	(m)	:	2.387	2.444	2.501	2.558	2.615	2.672
WPA	(m^2)	:	1122.42	1130.15	1137.63	1144.17	1150.74	1156.95
LCF	(m)	:	45.435	45.181	44.92	44.632	44.355	44.069
TCF	(m)	:	0	0	0	0	0	0
BML	(m)	:	148.324	144.821	141.425	137.775	134.355	130.989
BMT	(m)	:	47.463	46.258	45.109	43.986	42.923	41.903
KML	(m)	:	150.712	147.265	143.927	140.334	136.97	133.661
KMT	(m)	:	49.85	48.702	47.611	46.544	45.538	44.574
WSA	(m^2)	:	2075.63	2118.24	2161.07	2204.48	2247.95	2291.62
TPC	(t/cm)	:	11.58	11.66	11.74	11.81	11.88	11.94
MTC	(t- m/cm)	:	56.24	56.74	57.22	57.51	57.82	58.07
CB		:	0.278	0.281	0.283	0.285	0.288	0.29
CM		:	0.42	0.423	0.426	0.428	0.431	0.433
CP		:	0.663	0.664	0.665	0.667	0.668	0.67
CW		:	0.38	0.383	0.385	0.387	0.39	0.392
CB incl.shell		:	0.278	0.281	0.283	0.285	0.288	0.29
Vol.(mld)	(m^3)	:	3369.79	3482.42	3595.81	3709.88	3824.63	3940.04
IL	(m^4)	:	499821.4	504326.1	508538.4	511130.1	513856.4	516103.2
IT	(m^4)	:	159939.3	161089.7	162204.7	163182.9	164166.2	165098.1
Lw	(m)	:	96.75	96.852	96.953	97.055	97.157	97.258
Bw	(m)	:	32.177	32.19	32.2	32.2	32.2	32.2
CBw		:	0.264	0.266	0.268	0.27	0.272	0.274
CMw		:	0.42	0.423	0.426	0.428	0.431	0.433
CPw		:	0.628	0.629	0.629	0.63	0.631	0.631
CWw		:	0.361	0.363	0.364	0.366	0.368	0.369

Draft	(m)	:	4.7	4.74	4.8	4.9	5	5.1
Displt	(t)	:	4185.84	4233.9	4306.25	4427.49	4549.65	4672.74
LCB	(m)	:	47.051	47.013	46.957	46.861	46.767	46.672
VCB	(m)	:	2.728	2.751	2.785	2.841	2.898	2.955
WPA	(m^2)	:	1163.15	1165.98	1170.66	1179.27	1188.2	1197.24
LCF	(m)	:	43.791	43.695	43.572	43.403	43.257	43.122
KML	(m)	:	130.582	129.612	128.453	127.008	125.824	124.76
KMT	(m)	:	43.662	43.323	42.84	42.095	41.394	40.728
WSA	(m^2)	:	2335.37	2352.64	2378.24	2420.55	2462.64	2504.65
TPC	(t/cm)	:	12	12.03	12.08	12.17	12.26	12.36
MTC	(t- m/cm)	:	58.35	58.56	59	59.94	60.98	62.05
Displt	(t)	:	4185.84	4233.9	4306.25	4427.49	4549.65	4672.74
LCB	(m)	:	47.051	47.013	46.957	46.861	46.767	46.672
TCB	(m)	:	0	0	0	0	0	0
VCB	(m)	:	2.728	2.751	2.785	2.841	2.898	2.955
WPA	(m^2)	:	1163.15	1165.98	1170.66	1179.27	1188.2	1197.24
LCF	(m)	:	43.791	43.695	43.572	43.403	43.257	43.122
TCF	(m)	:	0	0	0	0	0	0
BML	(m)	:	127.853	126.861	125.668	124.167	122.926	121.806
BMT	(m)	:	40.934	40.572	40.056	39.253	38.496	37.774
KML	(m)	:	130.582	129.612	128.453	127.008	125.824	124.76
KMT	(m)	:	43.662	43.323	42.84	42.095	41.394	40.728
WSA	(m^2)	:	2335.37	2352.64	2378.24	2420.55	2462.64	2504.65
TPC	(t/cm)	:	12	12.03	12.08	12.17	12.26	12.36
MTC	(t- m/cm)	:	58.35	58.56	59	59.94	60.98	62.05
CB		:	0.292	0.293	0.294	0.296	0.299	0.301
CM		:	0.435	0.436	0.438	0.44	0.442	0.444
CP		:	0.671	0.672	0.673	0.674	0.676	0.677
CW		:	0.394	0.395	0.396	0.399	0.402	0.405
CB incl.shell		:	0.292	0.293	0.294	0.296	0.299	0.301
Vol.(mld)	(m^3)	:	4056.04	4102.62	4172.72	4290.2	4408.58	4527.84
IL	(m^4)	:	518578.6	520463	524378	532702	541927.2	551516.6
IT	(m^4)	:	166029.3	166450.7	167141.5	168404.4	169712.3	171033.9
Lw	(m)	:	97.36	97.401	97.462	97.566	97.68	97.697
Bw	(m)	:	32.2	32.2	32.2	32.2	32.2	32.2
CBw		:	0.275	0.276	0.277	0.279	0.28	0.282
CMw		:	0.435	0.436	0.438	0.44	0.442	0.444
CPw		:	0.632	0.632	0.633	0.634	0.634	0.636
CWw		:	0.371	0.372	0.373	0.375	0.378	0.381

Draft	(m)	:	5.2	5.3	5.4	5.469
Displt	(t)	:	4796.77	4921.75	5047.69	5135.16
LCB	(m)	:	46.579	46.487	46.396	46.334
VCB	(m)	:	3.011	3.068	3.125	3.164
WPA	(m^2)	:	1206.48	1215.58	1225.15	1231.75
LCF	(m)	:	43.001	42.889	42.799	42.739
KML	(m)	:	123.866	123.027	122.42	122.01
KMT	(m)	:	40.099	39.494	38.926	38.548
WSA	(m^2)	:	2546.61	2588.51	2630.47	2659.42
TPC	(t/cm)	:	12.45	12.54	12.64	12.71
MTC	(t- m/cm)	:	63.2	64.37	65.65	66.54
Displt	(t)	:	4796.77	4921.75	5047.69	5135.16
LCB	(m)	:	46.579	46.487	46.396	46.334
TCB	(m)	:	0	0	0	0
VCB	(m)	:	3.011	3.068	3.125	3.164
WPA	(m^2)	:	1206.48	1215.58	1225.15	1231.75
LCF	(m)	:	43.001	42.889	42.799	42.739
TCF	(m)	:	0	0	0	0
BML	(m)	:	120.855	119.959	119.294	118.846
BMT	(m)	:	37.088	36.425	35.801	35.384
KML	(m)	:	123.866	123.027	122.42	122.01
KMT	(m)	:	40.099	39.494	38.926	38.548
WSA	(m^2)	:	2546.61	2588.51	2630.47	2659.42
TPC	(t/cm)	:	12.45	12.54	12.64	12.71
MTC	(t- m/cm)	:	63.2	64.37	65.65	66.54
CB		:	0.303	0.305	0.307	0.308
CM		:	0.446	0.447	0.449	0.45
CP		:	0.679	0.681	0.683	0.684
CW		:	0.409	0.412	0.415	0.417
CB		:	0.303	0.305	0.307	0.308
incl.shell						
Vol.(mld)	(m^3)	:	4648.03	4769.13	4891.17	4975.93
IL	(m^4)	:	561737.1	572100.3	583489	591369.7
IT	(m^4)	:	172384.3	173717.9	175110.4	176066.5
Lw	(m)	:	97.715	97.732	97.749	97.761
Bw	(m)	:	32.2	32.2	32.2	32.2
CBw		:	0.284	0.286	0.288	0.289
CMw		:	0.446	0.447	0.449	0.45
CPw		:	0.637	0.639	0.641	0.642
CWw		:	0.383	0.386	0.389	0.391

4. INTACT STABILITY

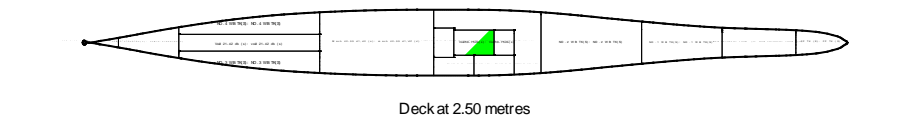
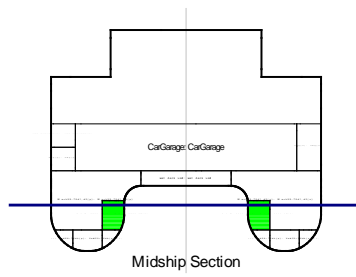
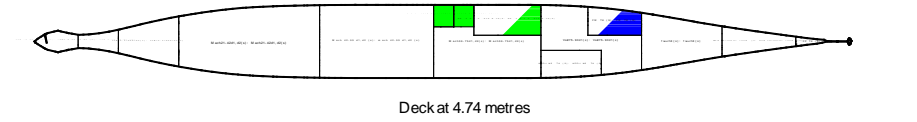
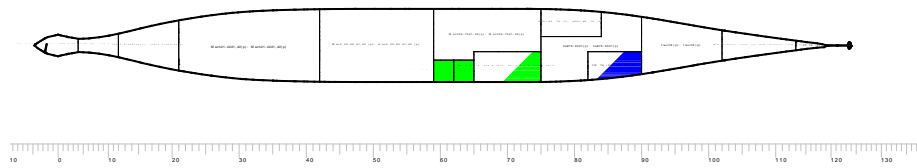
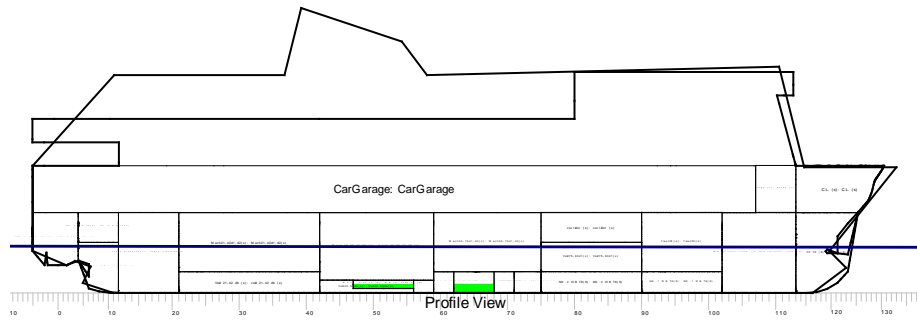
Summary of loading conditions

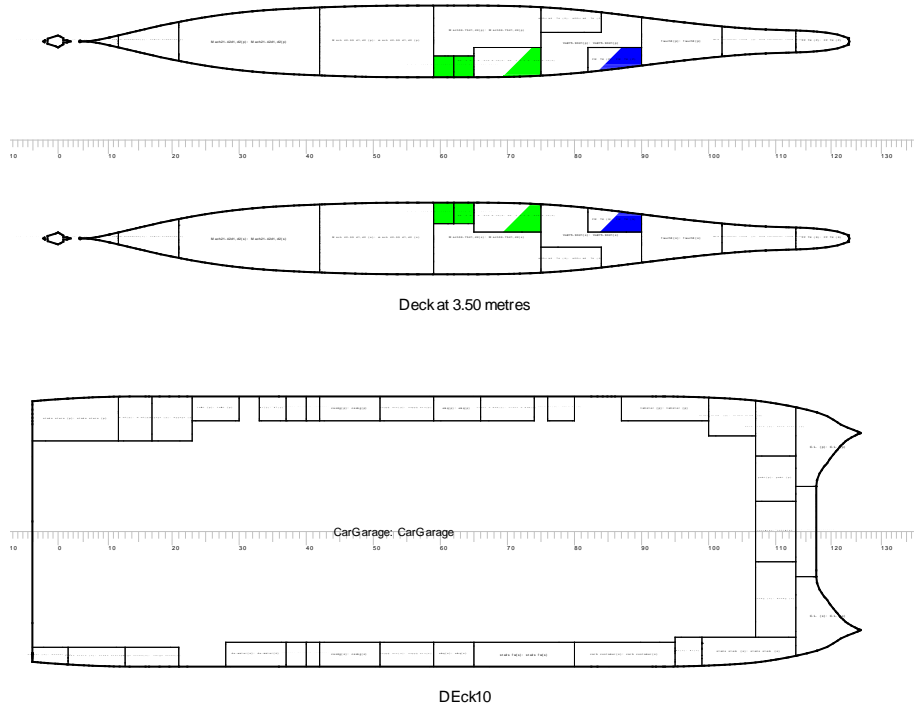
	Deadweight (t)	Displacement (t)	Mean draft at midships (m)	Draft at AP (m)	Draft at FP (m)	Trim by the stern (m)	KG (m)	LCG (m)	LCB (m)
Full Load Departure	1660,7	5139,4	5,468	5,524	5,413	0,111	12,236	46,198	46,187
Full Load Arrival	1431,4	4910,1	5,275	5,500	5,050	0,450	12,553	45,948	45,902
Passengers Only Departure	528,3	4007,0	4,550	4,598	4,502	0,096	12,215	47,057	47,047
Passengers Only Arrival	299,0	3777,7	4,352	4,548	4,155	0,393	12,626	46,784	46,741
Winter Departure	808,7	4287,4	4,785	4,768	4,803	-0,035	12,048	47,016	47,019
Winter Arrival	579,4	4058,1	4,588	4,732	4,444	0,288	12,421	46,760	46,729

Empty Departure	314,0	3792,7	4,368	4,444	4,291	0,153	11,663	47,122	47,107
Empty Arrival	70,1	3548,8	4,160	4,236	4,084	0,152	12,182	47,273	47,257
Full Cars Departure	1185,1	4663,8	5,083	5,240	4,926	0,314	12,310	46,291	46,259
Full Cars Arrival	981,2	4459,9	4,908	5,237	4,578	0,659	12,707	45,995	45,924

IMO 749

Intact State





Key

Key Name	Density (t/m3)
FW	1.0000
FO	0.9800
DO	0.9000
LO	0.9000

Intact State

Intact State

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>FO</i>										
H.F.O.SERV.TK(P): H.F.O.SERV.TK(P)	62-65	FO	100.0	0.980	20.5	48.40	-8.73	4.29	0.0	
H.F.O.SERV.TK(S): H.F.O.SERV.TK(S)	62-65	FO	100.0	0.980	20.5	48.40	8.73	4.29	0.0	
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	FO	100.0	0.980	20.5	46.00	-8.73	4.29	0.0	
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	FO	100.0	0.980	20.5	46.00	8.73	4.29	0.0	
NO.1 H.F.O.STOR.TK(P): NO.1	62-68	FO	42.0	0.980	14.2	49.60	- 11.74	0.56	10.4	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>H.F.O.STOR.TK(P)</i>										
NO.1 H.F.O.STOR.TK(S): NO.1 H.F.O.STOR.TK(S)	62-68	FO	42.0	0.980	14.2	49.60	11.74	0.56	10.4	
NO.2 H.F.O.STOR.TK(P): NO.2 H.F.O.STOR.TK(P)	65-75	FO	35.0	0.980	33.1	53.56	-9.32	3.16	28.3	
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	FO	35.0	0.980	33.1	53.56	9.32	3.16	28.3	
Total FO					176.6	49.96	0.00	3.27	77.4	
<i>DO</i>										
DO SERV TK(P): DO SERV TK(P)	21-25	DO	15.0	0.900	6.2	16.03	-9.15	6.41	5.3	
DO SERV TK(S): DO SERV TK(S)	34-39	DO	15.0	0.900	5.2	26.81	8.07	6.46	1.9	
Total DO					11.4	20.97	-1.26	6.44	7.2	
<i>LO</i>										
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	LO	50.0	0.900	4.8	38.80	- 11.74	0.75	1.8	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	LO	50.0	0.900	4.8	38.80	11.74	0.75	1.8	
Total LO					9.6	38.80	0.00	0.75	3.6	
<i>FW</i>										
FW TK (P): FW TK (P)	82-90	FW	55.0	1.000	34.3	66.25	-9.69	3.63	15.0	
FW TK (S): FW TK (S)	82-90	FW	55.0	1.000	34.3	66.25	9.69	3.63	15.0	
Total FW					68.6	66.25	0.00	3.63	30.0	
<i>PROVISIONS DEP</i>										
PROVISIONS					30.4	41.72	0.00	20.00	0.0	
Total PROVISIONS DEP					30.4	41.72	0.00	20.00	0.0	
<i>PASSENGERS</i>										
PASSENGERS					211.4	39.45	0.00	20.45	0.0	
Total PASSENGERS					211.4	39.45	0.00	20.45	0.0	
<i>LIQUIDS</i>										
LIQUIDS					12.5	33.89	0.00	3.27	0.0	
Total LIQUIDS					12.5	33.89	0.00	3.27	0.0	
<i>CREW</i>										
CREW					7.9	66.95	0.00	17.97	0.0	
Total CREW					7.9	66.95	0.00	17.97	0.0	
<i>CARS & TRUCKS</i>										

Title	Frames	Cargo	% full	SG (t/m ³)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
CARS & TRUCKS					1132.4	43.16	0.00	12.31	0.0	
Total CARS & TRUCKS					1132.4	43.16	0.00	12.31	0.0	
Lightweight					3478.7	47.15	0.00	12.34	0.0	
Deadweight					1660.7	44.20	-0.01	12.02	118.1	
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					5139.4	46.19	-0.00	3.17	181932.8	
Total Buoyancy					5139.4	46.19	-0.00	3.17	181932.8	

Intact State

Drafts at equilibrium angle

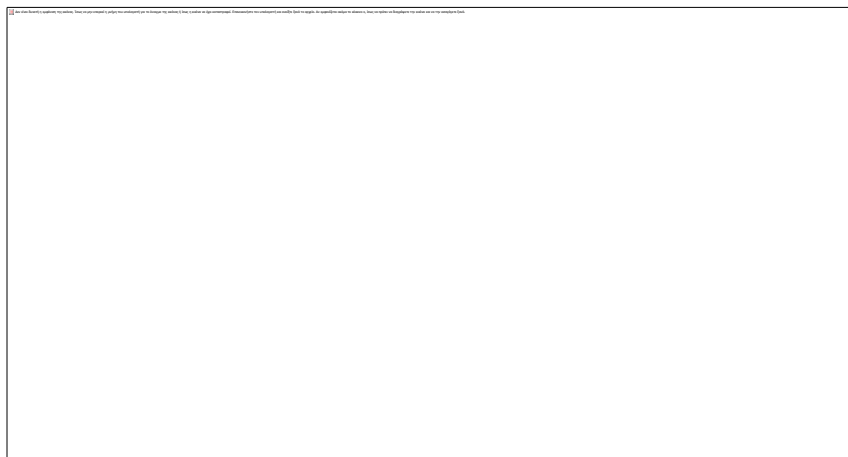
Draft at LCF	5.472	metres
Draft aft at marks	5.524	metres
Draft fwd at marks	5.413	metres
Draft at AP	5.524	metres
Draft at FP	5.413	metres
Mean draft at midships	5.468	metres

Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel to port	0.01	degrees
Trim by the stern	0.111	metres
KG	12.236	metres
FSC	0.023	metres
KGf	12.259	metres
GMt	26.306	metres
BMt	35.400	metres
BMI	119.156	metres
Waterplane area	1233.33	sq.metres
LCG	46.198	metres
LCB	46.187	metres
TCB	-0.004	metres
LCF	42.618	metres
TCF	-0.002	metres
TPC	12.728	tonnes/cm
MTC	66.768	tonnes-m/cm
Shell thickness	0.000	mm

Intact State

FULL LOAD DEPARTURE: Intact State



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)	Crowding (m)	Turning (m)	Wind (m)
0.00	-0.0028	26.3065	-0.110	5.469	24.53[0]	0.0003	0.6729	0.3983
5.00	2.2917	26.4158	0.001	5.410	23.07[1]	0.0003	0.6729	0.3983
10.00	4.5684	26.0696	0.356	5.226	21.52[1]	0.0003	0.6729	0.3983
15.00	6.7527	24.0943	0.752	4.886	19.92[1]	0.0003	0.6729	0.3983
20.00	8.4631	11.8254	1.164	4.315	18.37[1]	0.0003	0.6729	0.3983
25.00	8.0828	-10.0588	1.422	3.185	17.20[1]	0.0003	0.6729	0.3983
30.00	7.1781	-10.6402	1.408	1.904	16.02[1]	0.0003	0.6729	0.3983
35.00	6.2297	-11.0472	1.361	0.597	14.74[1]	0.0003	0.6729	0.3983
40.00	5.2539	-11.2564	1.288	-0.722	13.35[1]	0.0003	0.6729	0.3983
45.00	4.2687	-11.2422	1.193	-2.045	11.87[1]	0.0003	0.6729	0.3983
50.00	3.2952	-10.9665	1.082	-3.360	10.31[1]	0.0003	0.6729	0.3983
55.00	2.3578	-10.3927	0.958	-4.665	8.68[1]	0.0003	0.6729	0.3983
60.00	1.4866	-9.4126	0.837	-5.954	7.01[1]	0.0003	0.6729	0.3983
65.00	0.7235	-7.8416	0.710	-7.225	5.31[1]	0.0003	0.6729	0.3983
70.00	0.1721	-4.0644	0.547	-8.484	3.62[1]	0.0003	0.6729	0.3983

IMO Wind heeling

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1996.883	sq.metres
Area to leeward (Area b)	4.45572	m-radians
Area to windward (Area a)	0.00306	m-radians
GZc	0.398	metres
Gust angle	0.874	degrees
Rollback angle	25.118	degrees

Property	Value	Units
Steady state angle	0.585	degrees
Max. angle to leeward	50.000	degrees
B/d'	5.888	
X1	0.800	
Cb	0.309	
Ar	0.000	
K	1.000	
Og	6.791	metres
r	1.475	
T	5.874	seconds

IMO Turning

Property	Value	Units
Area A	4.55451	m-radians
Total Area A+B	5.31362	m-radians
Steady state angle	1.474	degrees
Max. angle	65.373	degrees

IMO Passenger crowding

Property	Value	Units
Area A	5.34540	m-radians
Total Area A+B	5.34576	m-radians
Steady state angle	0.007	degrees
Max. angle	70.000	degrees

Intact State

IMO 749 Intact stability Criteria Passenger

#	Criterion	Actual Value	Critical Value	
1	Area under GZ curve up to 30 degrees > 0.055	2.968	0.055	
2	Area under GZ curve from 30 to 40 deg. or downflood > 0.03	1.086	0.030	
3	Area under GZ curve up to 40 deg. or downflood > 0.09	4.055	0.090	
4	Initial GM to be at least 0.15 metres	26.307	0.150	
5	GZ to be at least 0.20m at an angle > 30 degrees	7.178	0.200	
6	Max GZ to be at an angle > 30 degrees	21.311	30.000	F
7	Angle of heel for passenger crowding < 10 degrees	0.007	10.000	
8	Angle of heel for turning < 10 degrees	1.474	10.000	
9	IMO Weather Criterion (Maximum Initial Angle Of Heel)	0.585	16.000	
10	IMO Weather Criterion (Areas)	Indeterm.	1.000	

**** Condition does not comply ****

Note

Term	Meaning
F	The criterion is not satisfied.
Indeterm.	The value cannot be determined, although the ship passes the test. The reason may be that the value has some very large value. Another reason may be that no profile has been defined, and thus the wind moment cannot be calculated.

Intact State

Immersion Particulars

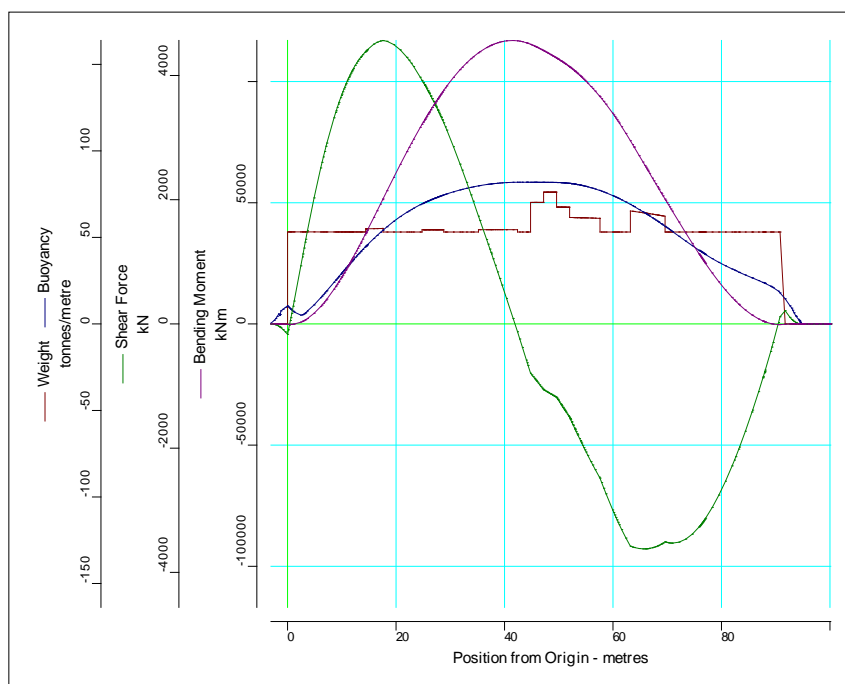
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	24.533	Not immersed
1	45.860	-16.100	30.000	24.530	Not immersed

Intact State

Longitudinal Strength



Shearing Force and Bending Moments

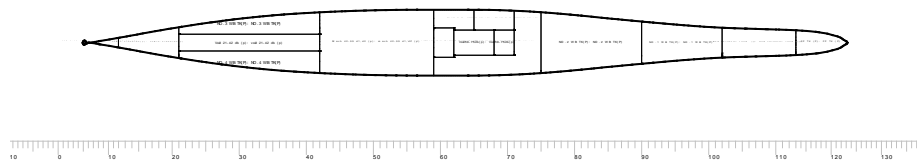
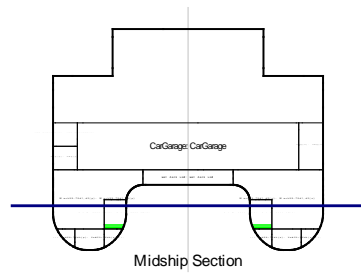
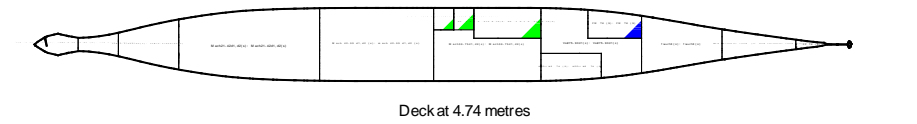
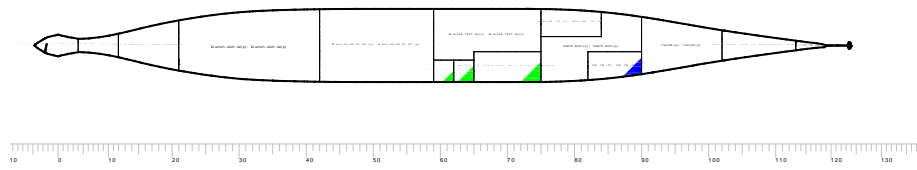
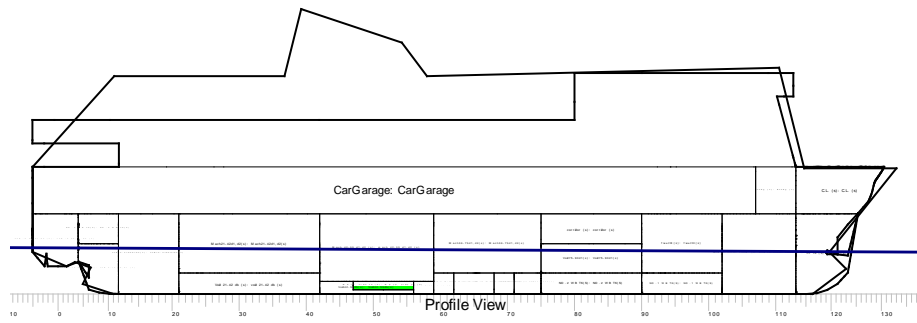
Distance	Shearing % of Max	Bending % of Max
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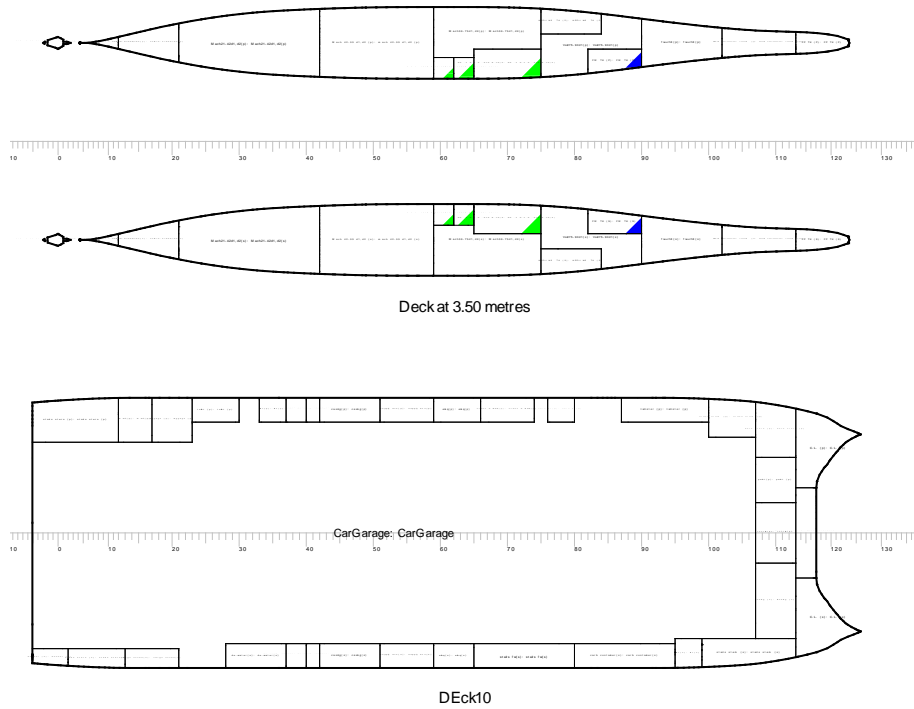
from Origin (m)		Force (kN)	allowed	Moment (kNm)	allowed
0.00	#0	-167.4	---	-172.6	---
0.39	--	0.0	---	-204.4	---
17.60	#25	4563.4	---	51577.6	---
41.93	--	0.0	---	116889.3	---
65.53	--	-3621.0	---	66777.8	---
70.95	--	-3528.9	---	46530.0	---
90.46	--	0.0	---	-247.4	---
91.75	--	212.9	---	-127.0	---
94.72	--	0.0	---	0.0	---
94.81	--	0.0	---	0.0	---
94.90	--	0.0	---	0.0	---
94.93	--	0.0	---	0.0	---
95.01	--	0.0	---	0.0	---
95.05	--	0.0	---	0.0	---
95.07	--	0.0	---	0.0	---
95.12	--	0.0	---	0.0	---
95.18	--	0.0	---	0.0	---
95.22	--	0.0	---	0.0	---
95.25	--	0.0	---	0.0	---
95.30	--	0.0	---	0.0	---
95.38	--	0.0	---	0.0	---
95.42	--	0.0	---	0.0	---
96.01	--	0.0	---	0.0	---
96.02	--	0.0	---	0.0	---
96.03	--	0.0	---	0.0	---
96.49	--	0.0	---	0.0	---
96.64	--	0.0	---	0.0	---
97.36	--	0.0	---	0.0	---
97.47	--	0.0	---	0.0	---
97.71	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.97	--	0.0	---	0.0	---
99.03	--	0.0	---	0.0	---
99.12	--	0.0	---	0.0	---
99.32	--	0.0	---	0.0	---
99.36	--	0.0	---	0.0	---
99.53	--	0.0	---	0.0	---

Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
99.61	--	0.0	---	0.0	---
99.71	--	0.0	---	0.0	---
99.82	--	0.0	---	0.0	---
99.85	--	0.0	---	0.0	---
99.88	--	0.0	---	0.0	---
99.99	--	0.0	---	0.0	---
100.01	--	0.0	---	0.0	---
100.02	--	0.0	---	0.0	---
<i>Maximum BM</i>					
41.59				116942.4	---
<i>Maximum SF</i>					
17.60		4563.4	---		

Damage Case Summary Table

Intact State





Key

Key Name	Density (t/m3)
FW	1.0000
FO	0.9800
DO	0.9000
LO	0.9000

Intact State

Intact State

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>FO</i>										
H.F.O.SERV.TK(P): H.F.O.SERV.TK(P)	62-65	FO	30.0	0.980	6.2	48.40	-8.80	3.07	3.2	
H.F.O.SERV.TK(S): H.F.O.SERV.TK(S)	62-65	FO	30.0	0.980	6.2	48.40	8.80	3.07	3.2	
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	FO	15.0	0.980	3.1	46.00	-8.84	2.79	2.7	
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	FO	15.0	0.980	3.1	46.00	8.84	2.79	2.7	
NO.2 H.F.O.STOR.TK(P):	65-75	FO	10.0	0.980	9.4	53.54	-9.41	2.70	22.3	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
NO.2 H.F.O.STOR.TK(P)										
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	FO	10.0	0.980	9.4	53.54	9.41	2.70	22.3	
Total FO					37.4	50.60	0.00	2.84	56.4	
<i>DO</i>										
DO SERV TK(P): DO SERV TK(P)	21-25	DO	2.5	0.900	1.0	16.04	-9.20	6.07	4.3	
DO SERV TK(S): DO SERV TK(S)	34-39	DO	2.5	0.900	0.9	26.81	8.13	6.08	1.1	
Total DO					1.9	20.97	-1.26	6.08	5.4	
<i>LO</i>										
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	LO	45.0	0.900	4.3	38.80	- 11.74	0.72	1.8	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	LO	45.0	0.900	4.3	38.80	11.74	0.72	1.8	
Total LO					8.6	38.80	0.00	0.72	3.6	
<i>FW</i>										
FW TK (P): FW TK (P)	82-90	FW	11.5	1.000	7.2	66.24	-9.89	2.76	6.9	
FW TK (S): FW TK (S)	82-90	FW	11.5	1.000	7.2	66.24	9.89	2.76	6.9	
Total FW					14.4	66.24	0.00	2.76	13.8	
<i>PROVISIONS ARR</i>										
PROVISIONS					5.0	41.72	0.00	20.00	0.0	
Total PROVISIONS ARR					5.0	41.72	0.00	20.00	0.0	
<i>PASSENGERS</i>										
PASSENGERS					211.4	39.45	0.00	20.45	0.0	
Total PASSENGERS					211.4	39.45	0.00	20.45	0.0	
<i>LIQUIDS</i>										
LIQUIDS					12.5	33.89	0.00	3.27	0.0	
Total LIQUIDS					12.5	33.89	0.00	3.27	0.0	
<i>CREW</i>										
CREW					7.9	66.95	0.00	17.97	0.0	
Total CREW					7.9	66.95	0.00	17.97	0.0	
<i>CARS & TRUCKS</i>										
CARS & TRUCKS					1132.4	43.16	0.00	12.31	0.0	
Total CARS & TRUCKS					1132.4	43.16	0.00	12.31	0.0	
Lightweight					3478.7	47.15	0.00	12.34	0.0	
Deadweight					1431.4	43.03	-0.00	13.07	79.2	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					4910.1	45.95	-0.00	12.55	79.2	
Buoyancy					4910.1	45.90	0.00	3.06	180119.7	
Total Buoyancy					4910.1	45.90	0.00	3.06	180119.7	

Intact State

Drafts at equilibrium angle

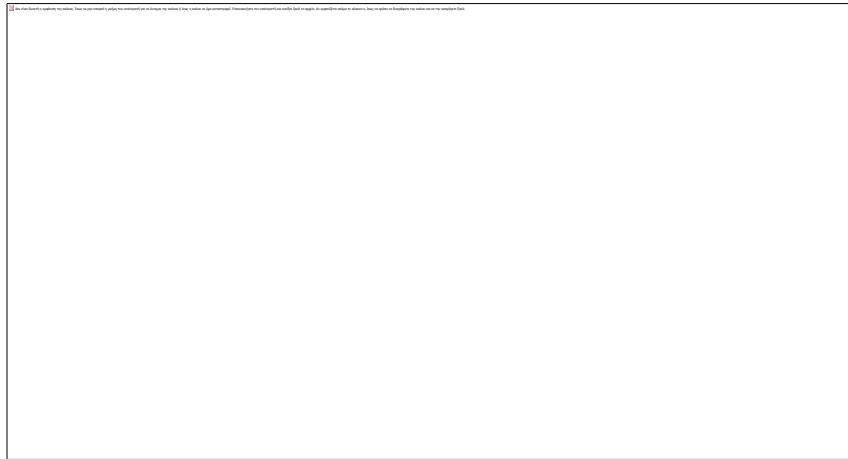
Draft at LCF	5.292 metres
Draft aft at marks	5.500 metres
Draft fwd at marks	5.050 metres
Draft at AP	5.500 metres
Draft at FP	5.050 metres
Mean draft at midships	5.275 metres

Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel	No heel
Trim by the stern	0.450 metres
KG	12.553 metres
FSC	0.016 metres
KGf	12.569 metres
GMt	27.178 metres
BMt	36.683 metres
BMI	122.069 metres
Waterplane area	1221.44 sq.metres
LCG	45.948 metres
LCB	45.902 metres
TCB	0.000 metres
LCF	42.466 metres
TCF	0.000 metres
TPC	12.605 tonnes/cm
MTC	65.349 tonnes-m/cm
Shell thickness	0.000 mm

Intact State

FULL LOAD ARRIVAL: Intact State



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)	Crowding (m)	Turning (m)	Wind (m)
0.00	-0.0005	27.1785	-0.449	5.275	24.72[0]	0.0003	0.7017	0.4206
5.00	2.3739	27.3483	-0.292	5.222	23.26[1]	0.0003	0.7017	0.4206
10.00	4.7080	26.6713	0.128	5.045	21.70[1]	0.0003	0.7017	0.4206
15.00	6.9197	24.1880	0.571	4.706	20.10[1]	0.0003	0.7017	0.4206
20.00	8.5290	7.8321	1.025	4.109	18.57[1]	0.0003	0.7017	0.4206
25.00	7.8974	-10.5313	1.183	2.929	17.45[1]	0.0003	0.7017	0.4206
30.00	6.9535	-11.0682	1.163	1.654	16.28[1]	0.0003	0.7017	0.4206
35.00	5.9698	-11.4292	1.119	0.356	14.98[1]	0.0003	0.7017	0.4206
40.00	4.9627	-11.5992	1.055	-0.952	13.58[1]	0.0003	0.7017	0.4206
45.00	3.9496	-11.5511	0.975	-2.259	12.09[1]	0.0003	0.7017	0.4206
50.00	2.9509	-11.2555	0.882	-3.560	10.51[1]	0.0003	0.7017	0.4206
55.00	1.9903	-10.6467	0.779	-4.848	8.87[1]	0.0003	0.7017	0.4206
60.00	1.0997	-9.6231	0.674	-6.122	7.18[1]	0.0003	0.7017	0.4206
65.00	0.3219	-8.0081	0.569	-7.376	5.46[1]	0.0003	0.7017	0.4206
70.00	-0.2481	-4.2885	0.439	-8.615	3.75[1]	0.0003	0.7017	0.4206

IMO Wind heeling

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2014.842	sq.metres
Area to leeward (Area b)	4.35018	m-radians
Area to windward (Area a)	0.00326	m-radians
GZc	0.421	metres
Gust angle	0.888	degrees
Rollback angle	25.828	degrees
Steady state angle	0.592	degrees
Max. angle to leeward	50.000	degrees

Property	Value	Units
B/d'	6.104	
X1	0.800	
Cb	0.306	
Ar	0.000	
K	1.000	
Og	7.294	metres
r	1.560	
T	5.840	seconds

IMO Turning

Property	Value	Units
Area A	4.34607	m-radians
Total Area A+B	5.10173	m-radians
Steady state angle	1.481	degrees
Max. angle	62.446	degrees

IMO Passenger crowding

Property	Value	Units
Area A	5.13077	m-radians
Total Area A+B	5.13113	m-radians
Steady state angle	0.000	degrees
Max. angle	67.464	degrees

Intact State

IMO 749 Intact stability Criteria Passenger

#	Criterion	Actual Value	Critical Value	
1	Area under GZ curve up to 30 degrees > 0.055	2.983	0.055	
2	Area under GZ curve from 30 to 40 deg. or downflood > 0.03	1.041	0.030	
3	Area under GZ curve up to 40 deg. or downflood > 0.09	4.024	0.090	
4	Initial GM to be at least 0.15 metres	27.178	0.150	
5	GZ to be at least 0.20m at an angle > 30 degrees	6.953	0.200	
6	Max GZ to be at an angle > 30 degrees	20.817	30.000	F
7	Angle of heel for passenger crowding < 10 degrees	0.000	10.000	
8	Angle of heel for turning < 10 degrees	1.481	10.000	
9	IMO Weather Criterion (Maximum Initial Angle Of Heel)	0.592	16.000	
10	IMO Weather Criterion (Areas)	Indeterm.	1.000	

**** Condition does not comply ****

Note

Term	Meaning
F	The criterion is not satisfied.
Indeterm.	The value cannot be determined, although the ship passes the test. The reason may be that the value has some very large value. Another reason may be that no profile has been defined, and thus the wind moment cannot be calculated.

Intact State

Immersion Particulars

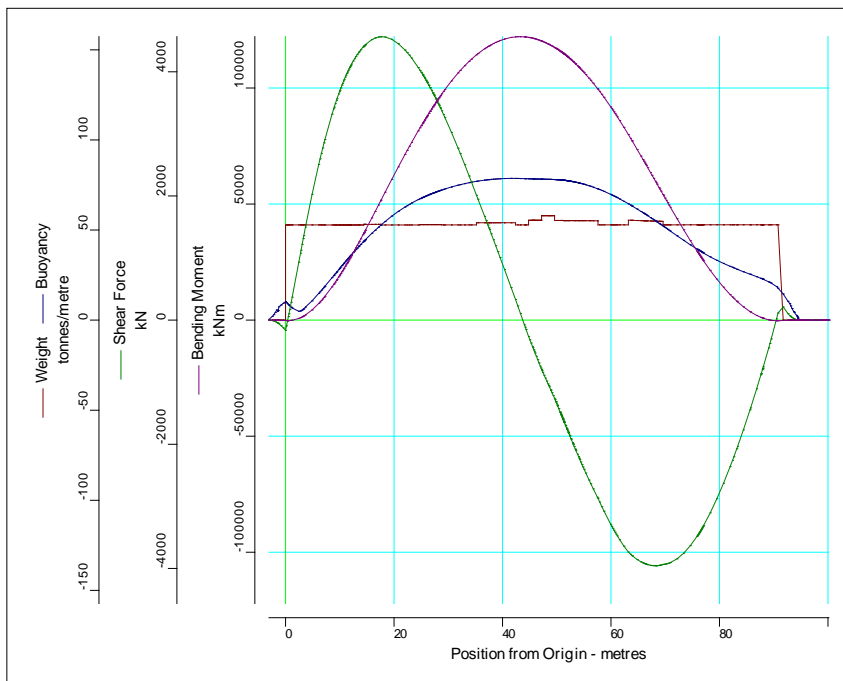
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	24.725	Not immersed
1	45.860	-16.100	30.000	24.725	Not immersed

Intact State

Longitudinal Strength



Shearing Force and Bending Moments

Distance from Origin (m)	Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed

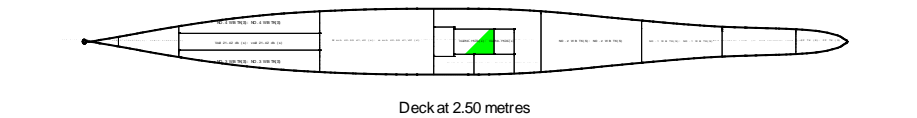
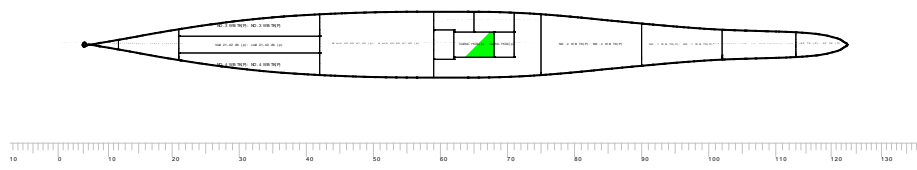
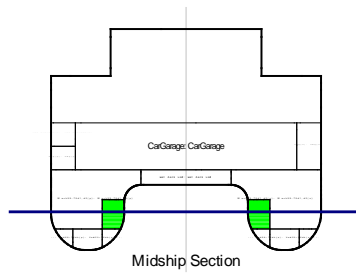
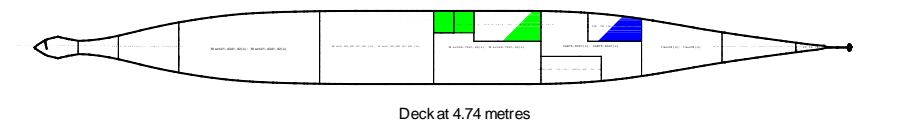
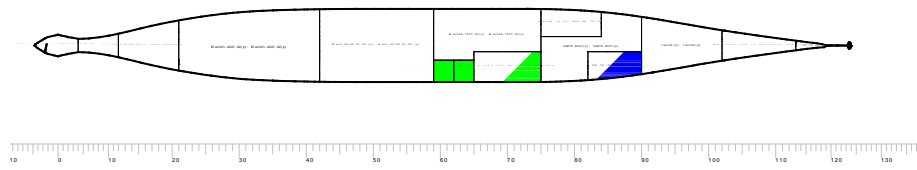
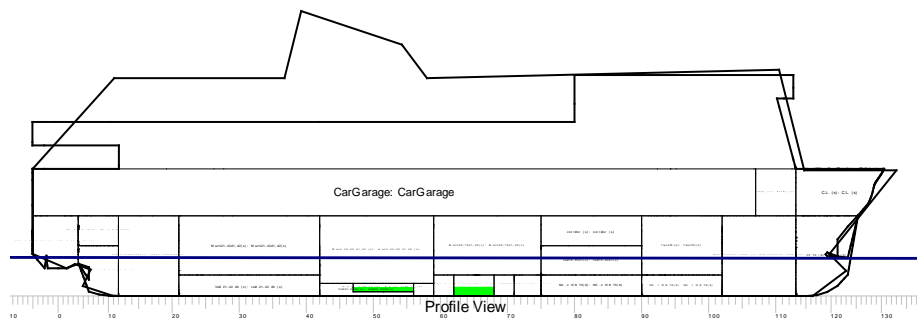
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
0.00	#0	-164.6	---	-169.5	---
0.39	--	0.0	---	-200.4	---
17.60	#25	4565.5	---	51684.5	---
43.74	--	0.0	---	122059.4	---
68.20	--	-3956.1	---	59804.6	---
90.46	--	0.0	---	-265.3	---
91.75	--	211.5	---	-134.8	---
94.69	--	0.0	---	0.0	---
94.72	--	0.0	---	0.0	---
94.81	--	0.0	---	0.0	---
94.90	--	0.0	---	0.0	---
94.93	--	0.0	---	0.0	---
95.01	--	0.0	---	0.0	---
95.05	--	0.0	---	0.0	---
95.07	--	0.0	---	0.0	---
95.12	--	0.0	---	0.0	---
95.18	--	0.0	---	0.0	---
95.22	--	0.0	---	0.0	---
95.25	--	0.0	---	0.0	---
95.30	--	0.0	---	0.0	---
95.38	--	0.0	---	0.0	---
95.42	--	0.0	---	0.0	---
96.01	--	0.0	---	0.0	---
96.02	--	0.0	---	0.0	---
96.03	--	0.0	---	0.0	---
96.49	--	0.0	---	0.0	---
96.64	--	0.0	---	0.0	---
97.36	--	0.0	---	0.0	---
97.47	--	0.0	---	0.0	---
97.71	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.97	--	0.0	---	0.0	---
99.03	--	0.0	---	0.0	---
99.12	--	0.0	---	0.0	---
99.32	--	0.0	---	0.0	---
99.36	--	0.0	---	0.0	---

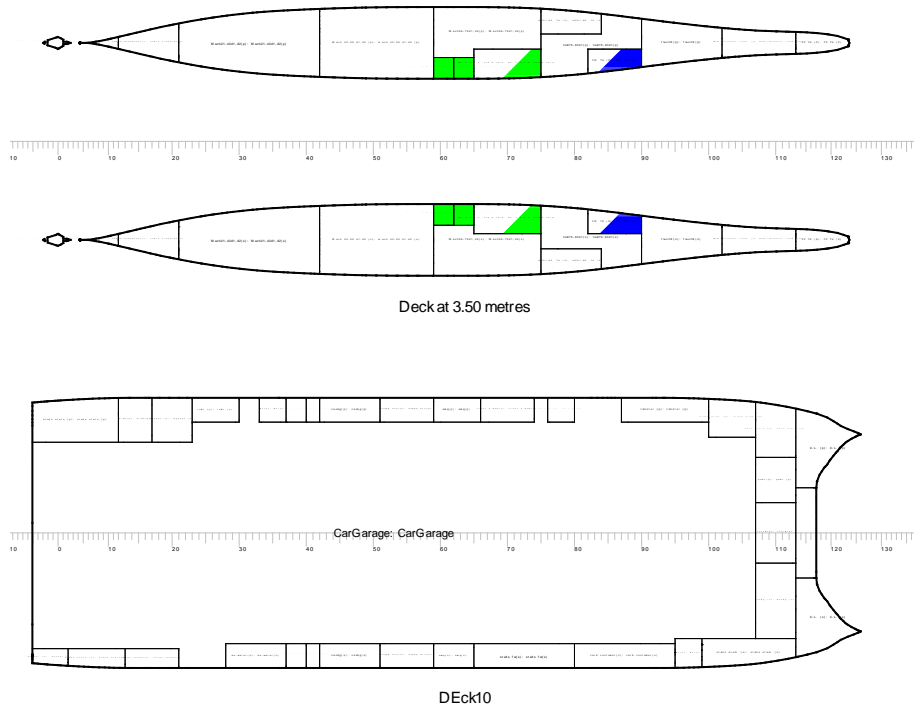
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
99.53	--	0.0	---	0.0	---
99.61	--	0.0	---	0.0	---
99.71	--	0.0	---	0.0	---
99.82	--	0.0	---	0.0	---
99.85	--	0.0	---	0.0	---
99.88	--	0.0	---	0.0	---
99.99	--	0.0	---	0.0	---
100.01	--	0.0	---	0.0	---
100.02	--	0.0	---	0.0	---
<i>Maximum BM</i>					
43.31				122105.5	---
<i>Maximum SF</i>					
17.60		4565.5	---		

Damage Case Summary Table

Case	Displ. (t)	Draft AP (m)	Draft FP (m)	LCG (m)	TCG (m)	VCG (m)	Range (degs)	Max GZ (m)	Heel (degs)	Area (m-rads)	Open-ings	Pass?
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Intact State





Key

Key Name	Density (t/m3)
FW	1.0000
FO	0.9800
DO	0.9000
LO	0.9000

Intact State

Intact State

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>FO</i>										
H.F.O.SERV.TK(P): H.F.O.SERV.TK(P)	62-65	FO	100.0	0.980	20.5	48.40	-8.73	4.29	0.0	
H.F.O.SERV.TK(S): H.F.O.SERV.TK(S)	62-65	FO	100.0	0.980	20.5	48.40	8.73	4.29	0.0	
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	FO	100.0	0.980	20.5	46.00	-8.73	4.29	0.0	
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	FO	100.0	0.980	20.5	46.00	8.73	4.29	0.0	
NO.1 H.F.O.STOR.TK(P): NO.1	62-68	FO	42.0	0.980	14.2	49.60	- 11.74	0.56	10.4	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
H.F.O.STOR.TK(P)										
NO.1 H.F.O.STOR.TK(S): NO.1 H.F.O.STOR.TK(S)	62-68	FO	42.0	0.980	14.2	49.60	11.74	0.56	10.4	
NO.2 H.F.O.STOR.TK(P): NO.2 H.F.O.STOR.TK(P)	65-75	FO	35.0	0.980	33.1	53.56	-9.32	3.16	28.3	
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	FO	35.0	0.980	33.1	53.56	9.32	3.16	28.3	
Total FO					176.6	49.96	0.00	3.27	77.4	
<i>DO</i>										
DO SERV TK(P): DO SERV TK(P)	21-25	DO	15.0	0.900	6.2	16.03	-9.15	6.41	5.3	
DO SERV TK(S): DO SERV TK(S)	34-39	DO	15.0	0.900	5.2	26.81	8.07	6.46	1.9	
Total DO					11.4	20.97	-1.26	6.44	7.2	
<i>LO</i>										
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	LO	50.0	0.900	4.8	38.80	- 11.74	0.75	1.8	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	LO	50.0	0.900	4.8	38.80	11.74	0.75	1.8	
Total LO					9.6	38.80	0.00	0.75	3.6	
<i>FW</i>										
FW TK (P): FW TK (P)	82-90	FW	55.0	1.000	34.3	66.25	-9.69	3.63	15.0	
FW TK (S): FW TK (S)	82-90	FW	55.0	1.000	34.3	66.25	9.69	3.63	15.0	
Total FW					68.6	66.25	0.00	3.63	30.0	
<i>PROVISIONS DEP</i>										
PROVISIONS					30.4	41.72	0.00	20.00	0.0	
Total PROVISIONS DEP					30.4	41.72	0.00	20.00	0.0	
<i>PASSENGERS</i>										
PASSENGERS					211.4	39.45	0.00	20.45	0.0	
Total PASSENGERS					211.4	39.45	0.00	20.45	0.0	
<i>LIQUIDS</i>										
LIQUIDS					12.5	33.89	0.00	3.27	0.0	
Total LIQUIDS					12.5	33.89	0.00	3.27	0.0	
<i>CREW</i>										
CREW					7.9	66.95	0.00	17.97	0.0	
Total CREW					7.9	66.95	0.00	17.97	0.0	
Lightweight					3478.7	47.15	0.00	12.34	0.0	

Title	Frames	Cargo	% full	SG (t/m ³)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Deadweight					528.3	46.44	-0.03	11.40	118.1	
Total Displacement					4007.0	47.06	-0.00	12.22	118.1	
Buoyancy					4008.1	47.05	-0.00	2.64	170411.9	
Total Buoyancy					4008.1	47.05	-0.00	2.64	170411.9	

Intact State

Drafts at equilibrium angle

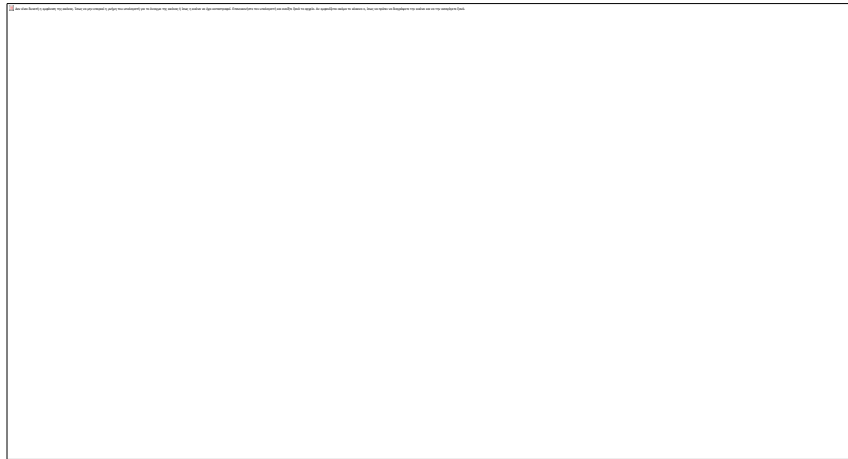
Draft at LCF	4.551	metres
Draft aft at marks	4.598	metres
Draft fwd at marks	4.502	metres
Draft at AP	4.598	metres
Draft at FP	4.502	metres
Mean draft at midships	4.550	metres

Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel to port	0.01	degrees
Trim by the stern	0.096	metres
KG	12.215	metres
FSC	0.029	metres
KGf	12.245	metres
GMt	32.926	metres
BMt	42.517	metres
BMI	134.277	metres
Waterplane area	1157.41	sq.metres
LCG	47.057	metres
LCB	47.047	metres
TCB	-0.005	metres
LCF	44.183	metres
TCF	-0.001	metres
TPC	11.944	tonnes/cm
MTC	58.678	tonnes-m/cm
Shell thickness	0.000	mm

Intact State

PASSENGERS ONLY: Intact State



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)	Crowding (m)	Turning (m)	Wind (m)
0.00	-0.0036	32.9275	-0.095	4.550	25.45[0]	0.0004	0.7044	0.5331
5.00	2.8457	32.5595	0.159	4.497	23.99[1]	0.0004	0.7044	0.5331
10.00	5.5854	31.0705	0.668	4.312	22.44[1]	0.0004	0.7044	0.5331
15.00	8.0323	24.3019	1.188	3.943	20.87[1]	0.0004	0.7044	0.5331
20.00	8.7119	-10.2103	1.806	3.099	19.58[1]	0.0004	0.7044	0.5331
25.00	7.7916	-10.8124	1.760	1.880	18.50[1]	0.0004	0.7044	0.5331
30.00	6.8260	-11.2706	1.694	0.640	17.29[1]	0.0004	0.7044	0.5331
35.00	5.8268	-11.5718	1.613	-0.611	15.95[1]	0.0004	0.7044	0.5331
40.00	4.8084	-11.6979	1.520	-1.866	14.50[1]	0.0004	0.7044	0.5331
45.00	3.7870	-11.6327	1.419	-3.117	12.94[1]	0.0004	0.7044	0.5331
50.00	2.7803	-11.3351	1.308	-4.359	11.31[1]	0.0004	0.7044	0.5331
55.00	1.8116	-10.7234	1.186	-5.585	9.60[1]	0.0004	0.7044	0.5331
60.00	0.9145	-9.6349	1.053	-6.793	7.85[1]	0.0004	0.7044	0.5331
65.00	0.1401	-7.8429	0.925	-7.980	6.07[1]	0.0004	0.7044	0.5331
70.00	-0.4163	-4.1820	0.816	-9.147	4.28[1]	0.0004	0.7044	0.5331

IMO Wind heeling

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2084.201	sq.metres
Area to leeward (Area b)	4.41958	m-radians
Area to windward (Area a)	0.00438	m-radians
GZc	0.533	metres
Gust angle	0.936	degrees
Rollback angle	27.318	degrees
Steady state angle	0.626	degrees
Max. angle to leeward	50.000	degrees

Property	Value	Units
B/d'	7.077	
X1	0.800	
Cb	0.290	
Ar	0.000	
K	1.000	
Og	7.695	metres
r	1.745	
T	5.557	seconds

IMO Turning

Property	Value	Units
Area A	4.47094	m-radians
Total Area A+B	5.21653	m-radians
Steady state angle	1.236	degrees
Max. angle	61.268	degrees

IMO Passenger crowding

Property	Value	Units
Area A	5.24434	m-radians
Total Area A+B	5.24477	m-radians
Steady state angle	0.007	degrees
Max. angle	66.046	degrees

Intact State

IMO 749 Intact stability Criteria Passenger

#	Criterion	Actual Value	Critical Value	
1	Area under GZ curve up to 30 degrees > 0.055	3.203	0.055	
2	Area under GZ curve from 30 to 40 deg. or downflood > 0.03	1.016	0.030	
3	Area under GZ curve up to 40 deg. or downflood > 0.09	4.219	0.090	
4	Initial GM to be at least 0.15 metres	32.927	0.150	
5	GZ to be at least 0.20m at an angle > 30 degrees	6.826	0.200	
6	Max GZ to be at an angle > 30 degrees	18.648	30.000	F
7	Angle of heel for passenger crowding < 10 degrees	0.007	10.000	
8	Angle of heel for turning < 10 degrees	1.236	10.000	
9	IMO Weather Criterion (Maximum Initial Angle Of Heel)	0.626	16.000	
10	IMO Weather Criterion (Areas)	Indeterm.	1.000	

**** Condition does not comply ****

Note

Term	Meaning
F	The criterion is not satisfied.
Indeterm.	The value cannot be determined, although the ship passes the test. The reason may be that the value has some very large value. Another reason may be that no profile has been defined, and thus the wind moment cannot be calculated.

Intact State

Immersion Particulars

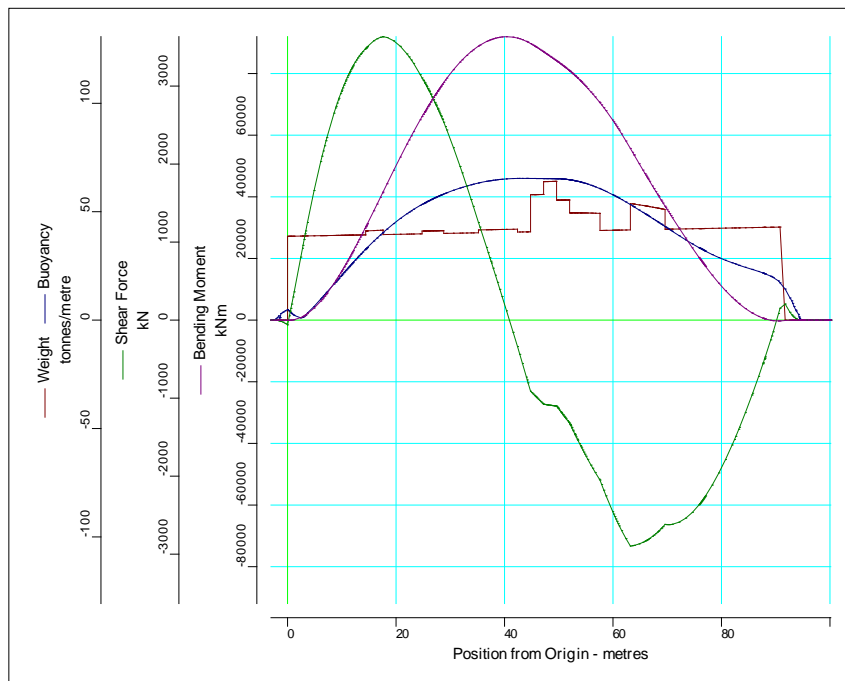
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	25.452	Not immersed
1	45.860	-16.100	30.000	25.449	Not immersed

Intact State

Longitudinal Strength



Shearing Force and Bending Moments

Distance from Origin (m)	Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
0	200000	100	0	0
20	200000	100	300000	150
40	200000	100	600000	300
60	200000	100	300000	150
80	200000	100	0	0
100	0	0	0	0

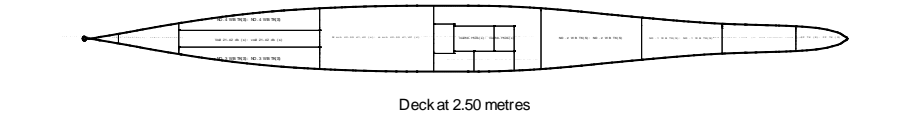
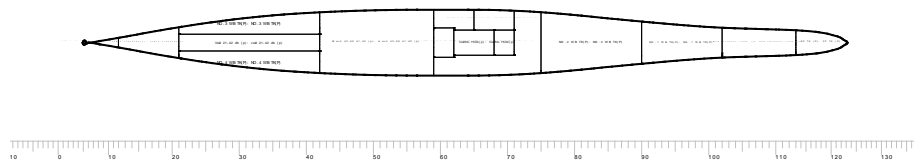
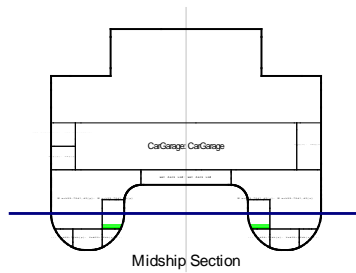
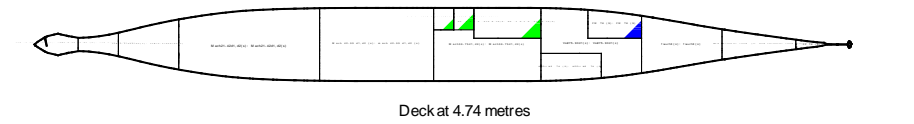
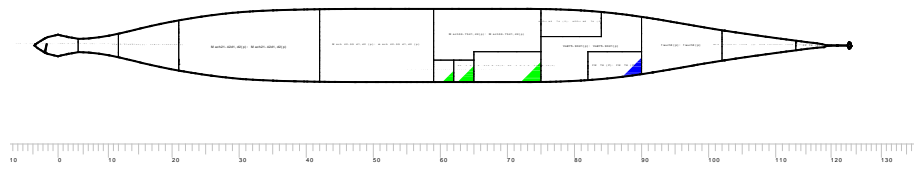
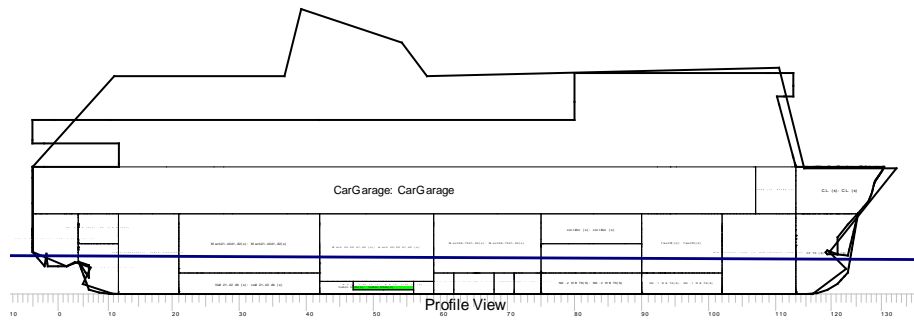
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
0.00	#0	-60.8	---	-49.3	---
0.18	--	0.0	---	-54.6	---
17.60	#25	3633.5	---	41542.8	---
40.90	--	0.0	---	91887.0	---
63.20	#82	-2896.1	---	55693.9	---
70.22	--	-2621.9	---	35256.1	---
90.17	--	0.0	---	-238.1	---
91.75	--	205.7	---	-117.5	---
94.55	--	0.0	---	0.0	---
94.56	--	0.0	---	0.0	---
94.61	--	0.0	---	0.0	---
94.69	--	0.0	---	0.0	---
94.72	--	0.0	---	0.0	---
94.81	--	0.0	---	0.0	---
94.90	--	0.0	---	0.0	---
94.93	--	0.0	---	0.0	---
95.01	--	0.0	---	0.0	---
95.05	--	0.0	---	0.0	---
95.07	--	0.0	---	0.0	---
95.12	--	0.0	---	0.0	---
95.18	--	0.0	---	0.0	---
95.22	--	0.0	---	0.0	---
95.25	--	0.0	---	0.0	---
95.30	--	0.0	---	0.0	---
95.38	--	0.0	---	0.0	---
95.42	--	0.0	---	0.0	---
96.01	--	0.0	---	0.0	---
96.02	--	0.0	---	0.0	---
96.03	--	0.0	---	0.0	---
96.49	--	0.0	---	0.0	---
96.64	--	0.0	---	0.0	---
97.36	--	0.0	---	0.0	---
97.47	--	0.0	---	0.0	---
97.71	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.97	--	0.0	---	0.0	---

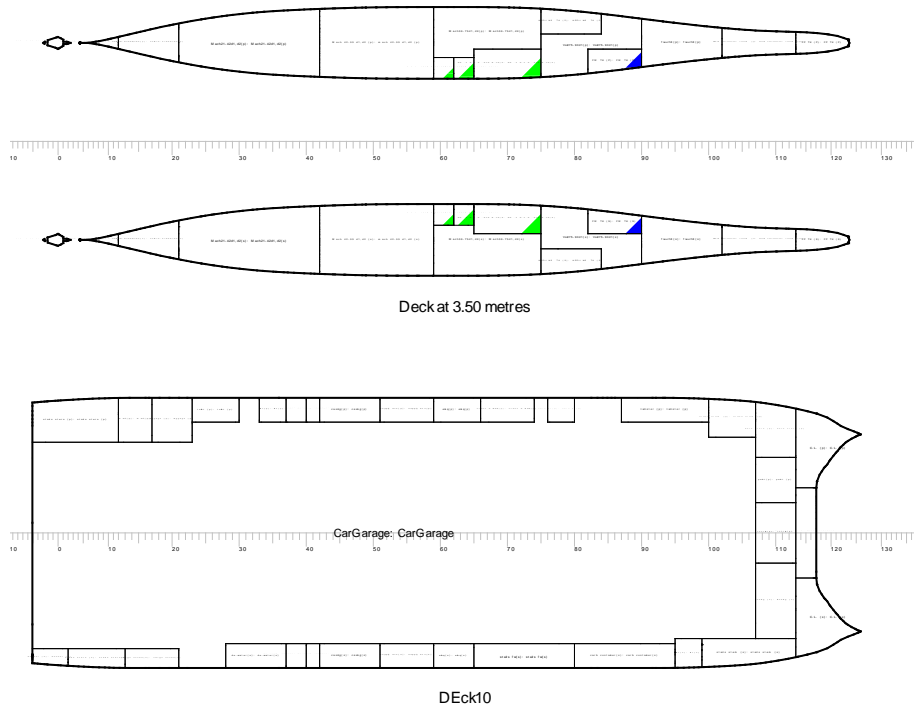
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
99.03	--	0.0	---	0.0	---
99.12	--	0.0	---	0.0	---
99.32	--	0.0	---	0.0	---
99.36	--	0.0	---	0.0	---
99.53	--	0.0	---	0.0	---
99.61	--	0.0	---	0.0	---
99.71	--	0.0	---	0.0	---
99.82	--	0.0	---	0.0	---
99.85	--	0.0	---	0.0	---
99.88	--	0.0	---	0.0	---
99.99	--	0.0	---	0.0	---
100.01	--	0.0	---	0.0	---
100.02	--	0.0	---	0.0	---
<i>Maximum BM</i>					
40.37				91955.1	---
<i>Maximum SF</i>					
17.60		3633.5	---		

Damage Case Summary Table

Case	Displ. (t)	Draft AP (m)	Draft FP (m)	LCG (m)	TCG (m)	VCG (m)	Range (degs)	Max GZ (m)	Heel (degs)	Area (m-rads)	Openings	Pass?
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Intact State





Key

Key Name	Density (t/m3)
FW	1.0000
FO	0.9800
DO	0.9000
LO	0.9000

Intact State

Intact State

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>FO</i>										
H.F.O.SERV.TK(P): H.F.O.SERV.TK(P)	62-65	FO	30.0	0.980	6.2	48.40	-8.80	3.07	3.2	
H.F.O.SERV.TK(S): H.F.O.SERV.TK(S)	62-65	FO	30.0	0.980	6.2	48.40	8.80	3.07	3.2	
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	FO	15.0	0.980	3.1	46.00	-8.84	2.79	2.7	
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	FO	15.0	0.980	3.1	46.00	8.84	2.79	2.7	
NO.2 H.F.O.STOR.TK(P):	65-75	FO	10.0	0.980	9.4	53.54	-9.41	2.70	22.3	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
NO.2 H.F.O.STOR.TK(P)										
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	FO	10.0	0.980	9.4	53.54	9.41	2.70	22.3	
Total FO					37.4	50.60	0.00	2.84	56.4	
<i>DO</i>										
DO SERV TK(P): DO SERV TK(P)	21-25	DO	2.5	0.900	1.0	16.04	-9.20	6.07	4.3	
DO SERV TK(S): DO SERV TK(S)	34-39	DO	2.5	0.900	0.9	26.81	8.13	6.08	1.1	
Total DO					1.9	20.97	-1.26	6.08	5.4	
<i>LO</i>										
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	LO	45.0	0.900	4.3	38.80	- 11.74	0.72	1.8	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	LO	45.0	0.900	4.3	38.80	11.74	0.72	1.8	
Total LO					8.6	38.80	0.00	0.72	3.6	
<i>FW</i>										
FW TK (P): FW TK (P)	82-90	FW	11.5	1.000	7.2	66.24	-9.89	2.76	6.9	
FW TK (S): FW TK (S)	82-90	FW	11.5	1.000	7.2	66.24	9.89	2.76	6.9	
Total FW					14.4	66.24	0.00	2.76	13.8	
<i>PROVISIONS ARR</i>										
PROVISIONS					5.0	41.72	0.00	20.00	0.0	
Total PROVISIONS ARR					5.0	41.72	0.00	20.00	0.0	
<i>PASSENGERS</i>										
PASSENGERS					211.4	39.45	0.00	20.45	0.0	
Total PASSENGERS					211.4	39.45	0.00	20.45	0.0	
<i>LIQUIDS</i>										
LIQUIDS					12.5	33.89	0.00	3.27	0.0	
Total LIQUIDS					12.5	33.89	0.00	3.27	0.0	
<i>CREW</i>										
CREW					7.9	66.95	0.00	17.97	0.0	
Total CREW					7.9	66.95	0.00	17.97	0.0	
Lightweight					3478.7	47.15	0.00	12.34	0.0	
Deadweight					299.0	42.53	-0.01	15.95	79.2	
Total Displacement					3777.7	46.78	-0.00	12.63	79.2	
Buoyancy					3777.7	46.74	0.00	2.53	169858.2	
Total Buoyancy					3777.7	46.74	0.00	2.53	169858.2	

Intact State**Drafts at equilibrium angle**

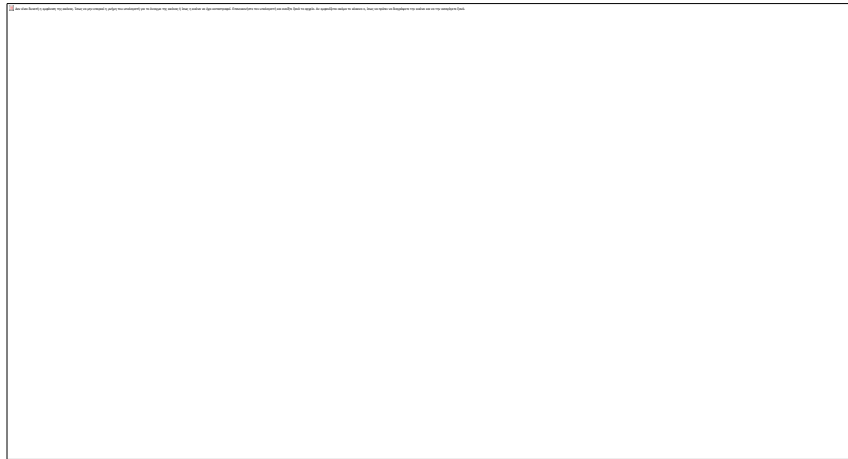
Draft at LCF	4.357	metres
Draft aft at marks	4.548	metres
Draft fwd at marks	4.155	metres
Draft at AP	4.548	metres
Draft at FP	4.155	metres
Mean draft at midships	4.352	metres

Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel	No heel	
Trim by the stern	0.393	metres
KG	12.626	metres
FSC	0.021	metres
KGf	12.647	metres
GMt	34.851	metres
BMt	44.963	metres
BMI	145.685	metres
Waterplane area	1154.43	sq.metres
LCG	46.784	metres
LCB	46.741	metres
TCB	0.000	metres
LCF	44.596	metres
TCF	0.000	metres
TPC	11.914	tonnes/cm
MTC	60.004	tonnes-m/cm
Shell thickness	0.000	mm

Intact State

PASSENGERS ONLY ARRIVAL: Intact State



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)	Crowding (m)	Turning (m)	Wind (m)
0.00	-0.0006	34.8513	-0.393	4.352	25.65[0]	0.0004	0.7398	0.5704
5.00	2.9927	33.9743	-0.124	4.299	24.18[1]	0.0004	0.7398	0.5704
10.00	5.8269	31.9055	0.417	4.114	22.63[1]	0.0004	0.7398	0.5704
15.00	8.2707	22.9542	0.975	3.730	21.08[1]	0.0004	0.7398	0.5704
20.00	8.5217	-10.7587	1.468	2.803	19.88[1]	0.0004	0.7398	0.5704
25.00	7.5557	-11.3272	1.427	1.593	18.79[1]	0.0004	0.7398	0.5704
30.00	6.5468	-11.7544	1.373	0.364	17.56[1]	0.0004	0.7398	0.5704
35.00	5.5073	-12.0255	1.308	-0.874	16.21[1]	0.0004	0.7398	0.5704
40.00	4.4511	-12.1284	1.236	-2.114	14.75[1]	0.0004	0.7398	0.5704
45.00	3.3940	-12.0343	1.158	-3.350	13.18[1]	0.0004	0.7398	0.5704
50.00	2.3549	-11.7017	1.074	-4.575	11.52[1]	0.0004	0.7398	0.5704
55.00	1.3574	-11.0514	0.982	-5.784	9.80[1]	0.0004	0.7398	0.5704
60.00	0.4353	-9.9191	0.881	-6.973	8.03[1]	0.0004	0.7398	0.5704
65.00	-0.3573	-8.0104	0.780	-8.141	6.23[1]	0.0004	0.7398	0.5704
70.00	-0.9220	-4.4020	0.711	-9.285	4.42[1]	0.0004	0.7398	0.5704

IMO Wind heeling

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2102.773	sq.metres
Area to leeward (Area b)	4.27011	m-radians
Area to windward (Area a)	0.00469	m-radians
GZc	0.570	metres
Gust angle	0.943	degrees
Rollback angle	28.309	degrees
Steady state angle	0.628	degrees
Max. angle to leeward	50.000	degrees

Property	Value	Units
B/d'	7.399	
X1	0.800	
Cb	0.285	
Ar	0.000	
K	1.000	
Og	8.295	metres
r	1.874	
T	5.482	seconds

IMO Turning

Property	Value	Units
Area A	4.24010	m-radians
Total Area A+B	4.98476	m-radians
Steady state angle	1.223	degrees
Max. angle	58.286	degrees

IMO Passenger crowding

Property	Value	Units
Area A	5.01166	m-radians
Total Area A+B	5.01209	m-radians
Steady state angle	0.002	degrees
Max. angle	62.612	degrees

Intact State

IMO 749 Intact stability Criteria Passenger

#	Criterion	Actual Value	Critical Value	
1	Area under GZ curve up to 30 degrees > 0.055	3.210	0.055	
2	Area under GZ curve from 30 to 40 deg. or downflood > 0.03	0.961	0.030	
3	Area under GZ curve up to 40 deg. or downflood > 0.09	4.170	0.090	
4	Initial GM to be at least 0.15 metres	34.851	0.150	
5	GZ to be at least 0.20m at an angle > 30 degrees	6.547	0.200	
6	Max GZ to be at an angle > 30 degrees	17.692	30.000	F
7	Angle of heel for passenger crowding < 10 degrees	0.002	10.000	
8	Angle of heel for turning < 10 degrees	1.223	10.000	
9	IMO Weather Criterion (Maximum Initial Angle Of Heel)	0.628	16.000	
10	IMO Weather Criterion (Areas)	Indeterm.	1.000	

**** Condition does not comply ****

Note

Term	Meaning
F	The criterion is not satisfied.
Indeterm.	The value cannot be determined, although the ship passes the test. The reason may be that the value has some very large value. Another reason may be that no profile has been defined, and thus the wind moment cannot be calculated.

Intact State

Immersion Particulars

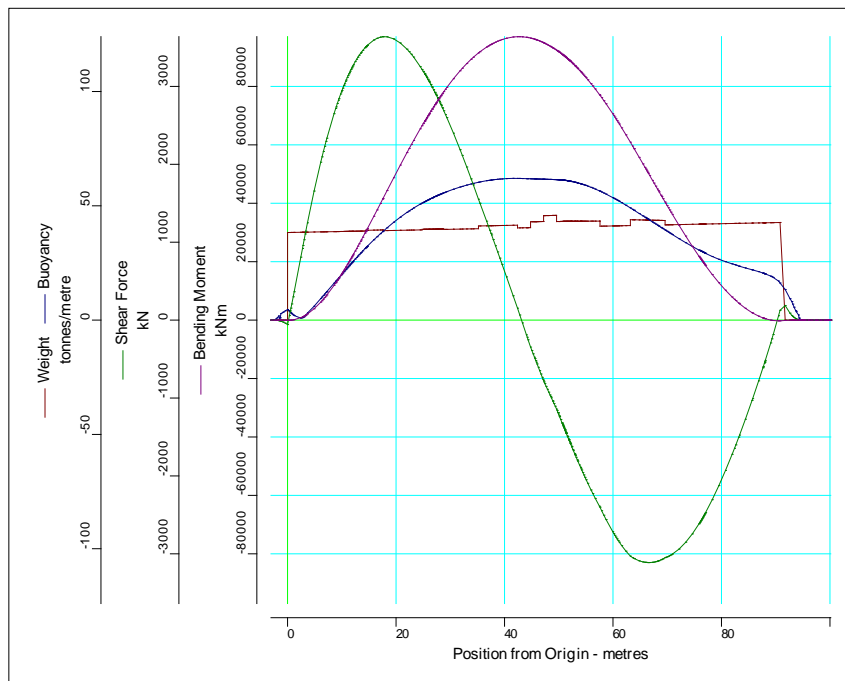
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	25.648	Not immersed
1	45.860	-16.100	30.000	25.648	Not immersed

Intact State

Longitudinal Strength



Shearing Force and Bending Moments

Distance from Origin (m)	Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
0	0	0	0	0
20	10000	12.5	30000	37.5
40	20000	25	60000	75
60	20000	25	60000	75
80	20000	25	60000	75
100	0	0	0	0

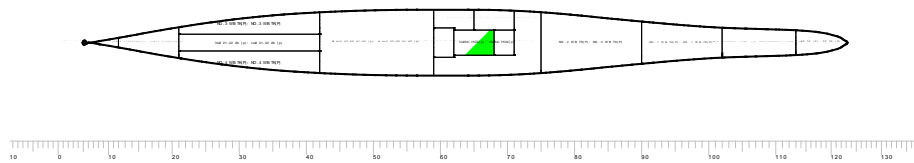
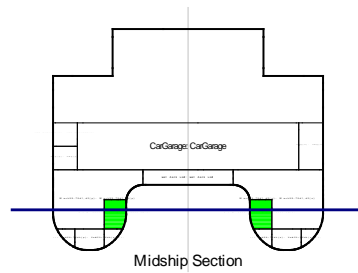
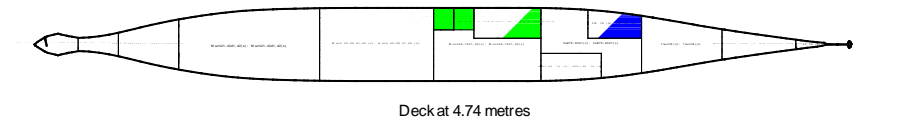
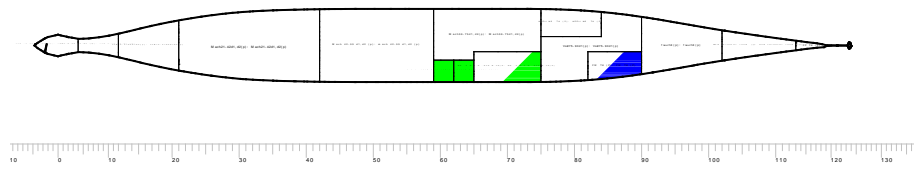
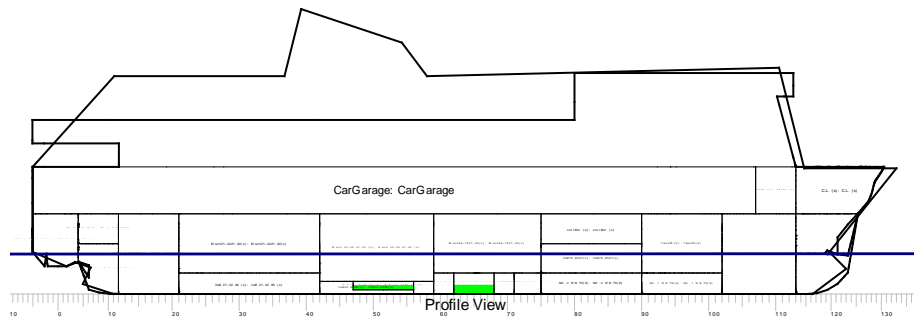
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
0.00	#0	-57.1	---	-45.6	---
0.17	--	0.0	---	-50.5	---
17.60	#25	3638.2	---	41635.7	---
43.13	--	0.0	---	96999.4	---
66.53	--	-3112.0	---	50246.0	---
90.30	--	0.0	---	-220.6	---
91.75	--	187.4	---	-109.7	---
94.50	--	0.0	---	0.0	---
94.55	--	0.0	---	0.0	---
94.56	--	0.0	---	0.0	---
94.61	--	0.0	---	0.0	---
94.69	--	0.0	---	0.0	---
94.72	--	0.0	---	0.0	---
94.81	--	0.0	---	0.0	---
94.90	--	0.0	---	0.0	---
94.93	--	0.0	---	0.0	---
95.01	--	0.0	---	0.0	---
95.05	--	0.0	---	0.0	---
95.07	--	0.0	---	0.0	---
95.12	--	0.0	---	0.0	---
95.18	--	0.0	---	0.0	---
95.22	--	0.0	---	0.0	---
95.25	--	0.0	---	0.0	---
95.30	--	0.0	---	0.0	---
95.38	--	0.0	---	0.0	---
95.42	--	0.0	---	0.0	---
96.01	--	0.0	---	0.0	---
96.02	--	0.0	---	0.0	---
96.03	--	0.0	---	0.0	---
96.49	--	0.0	---	0.0	---
96.64	--	0.0	---	0.0	---
97.36	--	0.0	---	0.0	---
97.47	--	0.0	---	0.0	---
97.71	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.97	--	0.0	---	0.0	---

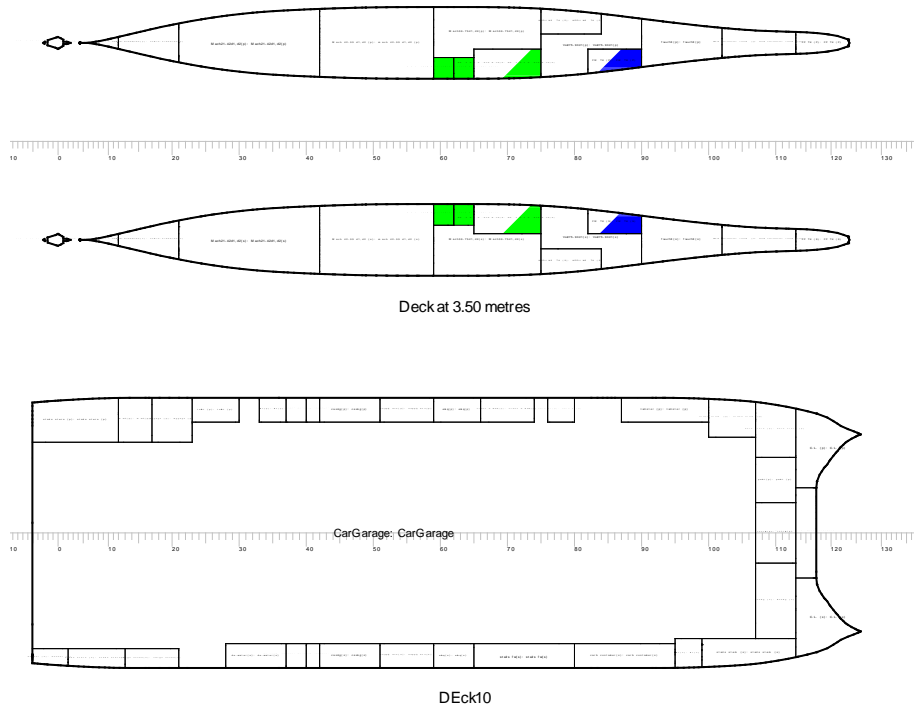
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
99.03	--	0.0	---	0.0	---
99.12	--	0.0	---	0.0	---
99.32	--	0.0	---	0.0	---
99.36	--	0.0	---	0.0	---
99.53	--	0.0	---	0.0	---
99.61	--	0.0	---	0.0	---
99.71	--	0.0	---	0.0	---
99.82	--	0.0	---	0.0	---
99.85	--	0.0	---	0.0	---
99.88	--	0.0	---	0.0	---
99.99	--	0.0	---	0.0	---
100.01	--	0.0	---	0.0	---
100.02	--	0.0	---	0.0	---
<i>Maximum BM</i>					
42.82				97026.2	---
<i>Maximum SF</i>					
17.60		3638.2	---		

Damage Case Summary Table

Case	Displ. (t)	Draft AP (m)	Draft FP (m)	LCG (m)	TCG (m)	VCG (m)	Range (degs)	Max GZ (m)	Heel (degs)	Area (m-rads)	Openings	Pass?
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Intact State





Key

Key Name	Density (t/m3)
FW	1.0000
FO	0.9800
DO	0.9000
LO	0.9000

Intact State

Intact State

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>FO</i>										
H.F.O.SERV.TK(P): H.F.O.SERV.TK(P)	62-65	FO	100.0	0.980	20.5	48.40	-8.73	4.29	0.0	
H.F.O.SERV.TK(S): H.F.O.SERV.TK(S)	62-65	FO	100.0	0.980	20.5	48.40	8.73	4.29	0.0	
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	FO	100.0	0.980	20.5	46.00	-8.73	4.29	0.0	
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	FO	100.0	0.980	20.5	46.00	8.73	4.29	0.0	
NO.1 H.F.O.STOR.TK(P): NO.1	62-68	FO	42.0	0.980	14.2	49.60	- 11.74	0.56	10.4	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>H.F.O.STOR.TK(P)</i>										
NO.1 H.F.O.STOR.TK(S): NO.1 H.F.O.STOR.TK(S)	62-68	FO	42.0	0.980	14.2	49.60	11.74	0.56	10.4	
NO.2 H.F.O.STOR.TK(P): NO.2 H.F.O.STOR.TK(P)	65-75	FO	35.0	0.980	33.1	53.56	-9.32	3.16	28.3	
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	FO	35.0	0.980	33.1	53.56	9.32	3.16	28.3	
Total FO					176.6	49.96	0.00	3.27	77.4	
<i>DO</i>										
DO SERV TK(P): DO SERV TK(P)	21-25	DO	15.0	0.900	6.2	16.03	-9.15	6.41	5.3	
DO SERV TK(S): DO SERV TK(S)	34-39	DO	15.0	0.900	5.2	26.81	8.07	6.46	1.9	
Total DO					11.4	20.97	-1.26	6.44	7.2	
<i>LO</i>										
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	LO	50.0	0.900	4.8	38.80	- 11.74	0.75	1.8	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	LO	50.0	0.900	4.8	38.80	11.74	0.75	1.8	
Total LO					9.6	38.80	0.00	0.75	3.6	
<i>FW</i>										
FW TK (P): FW TK (P)	82-90	FW	55.0	1.000	34.3	66.25	-9.69	3.63	15.0	
FW TK (S): FW TK (S)	82-90	FW	55.0	1.000	34.3	66.25	9.69	3.63	15.0	
Total FW					68.6	66.25	0.00	3.63	30.0	
<i>PROVISIONS DEP</i>										
PROVISIONS					30.4	41.72	0.00	20.00	0.0	
Total PROVISIONS DEP					30.4	41.72	0.00	20.00	0.0	
<i>PASSENGERS WINTER</i>										
PASSENGERS					140.1	44.16	0.00	19.31	0.0	
Total PASSENGERS WINTER					140.1	44.16	0.00	19.31	0.0	
<i>LIQUIDS</i>										
LIQUIDS					12.5	33.89	0.00	3.27	0.0	
Total LIQUIDS					12.5	33.89	0.00	3.27	0.0	
<i>CREW</i>										
CREW					7.9	66.95	0.00	17.97	0.0	
Total CREW					7.9	66.95	0.00	17.97	0.0	

Title	Frames	Cargo	% full	SG (t/m ³)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>30% CARS & TRUCKS</i>										
40% CARS & TRUCKS					351.6	43.14	0.00	12.30	0.0	
Total 30% CARS & TRUCKS					351.6	43.14	0.00	12.30	0.0	
Lightweight					3478.7	47.15	0.00	12.34	0.0	
Deadweight					808.7	46.44	-0.02	10.79	118.1	
Total Displacement					4287.4	47.02	-0.00	12.05	118.1	
Buoyancy					4287.4	47.02	-0.00	2.78	172174.3	
Total Buoyancy					4287.4	47.02	-0.00	2.78	172174.3	

Intact State

Drafts at equilibrium angle

Draft at LCF	4.784	metres
Draft aft at marks	4.768	metres
Draft fwd at marks	4.803	metres
Draft at AP	4.768	metres
Draft at FP	4.803	metres
Mean draft at midships	4.785	metres

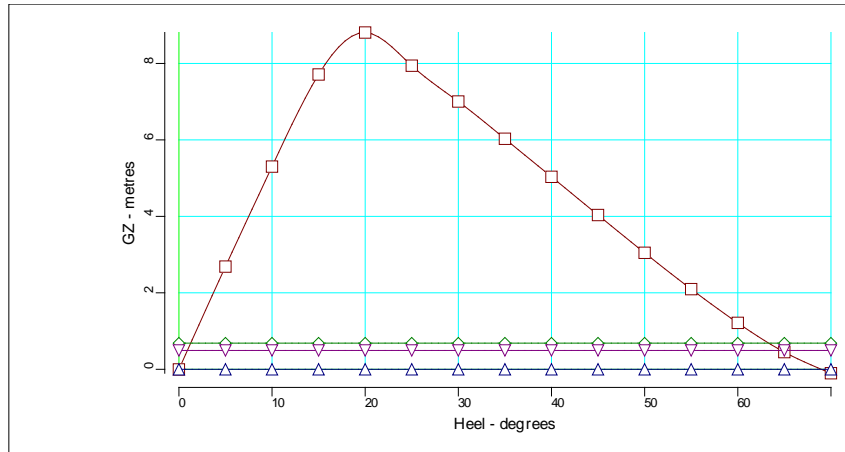
Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel to port	0.01	degrees
Trim by the bow	0.035	metres
KG	12.048	metres
FSC	0.028	metres
KGf	12.076	metres
GMt	30.858	metres
BMt	40.158	metres
BMI	125.599	metres
Waterplane area	1168.53	sq.metres
LCG	47.016	metres
LCB	47.019	metres
TCB	-0.004	metres
LCF	43.627	metres
TCF	-0.002	metres
TPC	12.059	tonnes/cm
MTC	58.711	tonnes-m/cm

Density of water	1.0320	tonnes/cu.m
Shell thickness	0.000	mm

Intact State

WINTER_DEP: Intact State



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)	Crowding (m)	Turning (m)	Wind (m)
0.00	-0.0033	30.8586	0.035	4.785	25.21[0]	0.0003	0.6841	0.4929
5.00	2.6870	30.8715	0.252	4.732	23.75[1]	0.0003	0.6841	0.4929
10.00	5.3028	29.8148	0.727	4.548	22.20[1]	0.0003	0.6841	0.4929
15.00	7.7112	24.9922	1.202	4.191	20.62[1]	0.0003	0.6841	0.4929
20.00	8.8086	-5.5304	1.861	3.440	19.24[1]	0.0003	0.6841	0.4929
25.00	7.9425	-10.4805	1.852	2.218	18.16[1]	0.0003	0.6841	0.4929
30.00	7.0045	-10.9683	1.789	0.966	16.96[1]	0.0003	0.6841	0.4929
35.00	6.0305	-11.2948	1.707	-0.301	15.64[1]	0.0003	0.6841	0.4929
40.00	5.0352	-11.4414	1.610	-1.573	14.20[1]	0.0003	0.6841	0.4929
45.00	4.0350	-11.3932	1.501	-2.842	12.67[1]	0.0003	0.6841	0.4929
50.00	3.0479	-11.1159	1.378	-4.103	11.05[1]	0.0003	0.6841	0.4929
55.00	2.0967	-10.5265	1.242	-5.349	9.37[1]	0.0003	0.6841	0.4929
60.00	1.2144	-9.4890	1.097	-6.579	7.64[1]	0.0003	0.6841	0.4929
65.00	0.4500	-7.7522	0.960	-7.788	5.88[1]	0.0003	0.6841	0.4929
70.00	-0.1035	-4.1182	0.824	-8.980	4.11[1]	0.0003	0.6841	0.4929

IMO Wind heeling

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2062.018	sq.metres

Property	Value	Units
Area to leeward (Area b)	4.49435	m-radians
Area to windward (Area a)	0.00399	m-radians
GZc	0.493	metres
Gust angle	0.922	degrees
Rollback angle	26.518	degrees
Steady state angle	0.617	degrees
Max. angle to leeward	50.000	degrees
B/d'	6.729	
X1	0.800	
Cb	0.295	
Ar	0.000	
K	1.000	
Og	7.290	metres
r	1.644	
T	5.647	seconds

IMO Turning

Property	Value	Units
Area A	4.59492	m-radians
Total Area A+B	5.34369	m-radians
Steady state angle	1.277	degrees
Max. angle	63.353	degrees

IMO Passenger crowding

Property	Value	Units
Area A	5.37350	m-radians
Total Area A+B	5.37392	m-radians
Steady state angle	0.007	degrees
Max. angle	68.765	degrees

Intact State

IMO 749 Intact stability Criteria Passenger

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to 30 degrees > 0.055	3.164	0.055
2	Area under GZ curve from 30 to 40 deg. or downflood > 0.03	1.052	0.030
3	Area under GZ curve up to 40 deg. or downflood > 0.09	4.216	0.090
4	Initial GM to be at least 0.15 metres	30.859	0.150
5	GZ to be at least 0.20m at an angle > 30 degrees	7.005	0.200

#	Criterion	Actual Value	Critical Value	
6	Max GZ to be at an angle > 30 degrees	19.392	30.000	F
7	Angle of heel for passenger crowding < 10 degrees	0.007	10.000	
8	Angle of heel for turning < 10 degrees	1.277	10.000	
9	IMO Weather Criterion (Maximum Initial Angle Of Heel)	0.617	16.000	
10	IMO Weather Criterion (Areas)	Indeterm.	1.000	

**** Condition does not comply ****

Note

Term	Meaning
F	The criterion is not satisfied.
Indeterm.	The value cannot be determined, although the ship passes the test. The reason may be that the value has some very large value. Another reason may be that no profile has been defined, and thus the wind moment cannot be calculated.

Intact State

Immersion Particulars

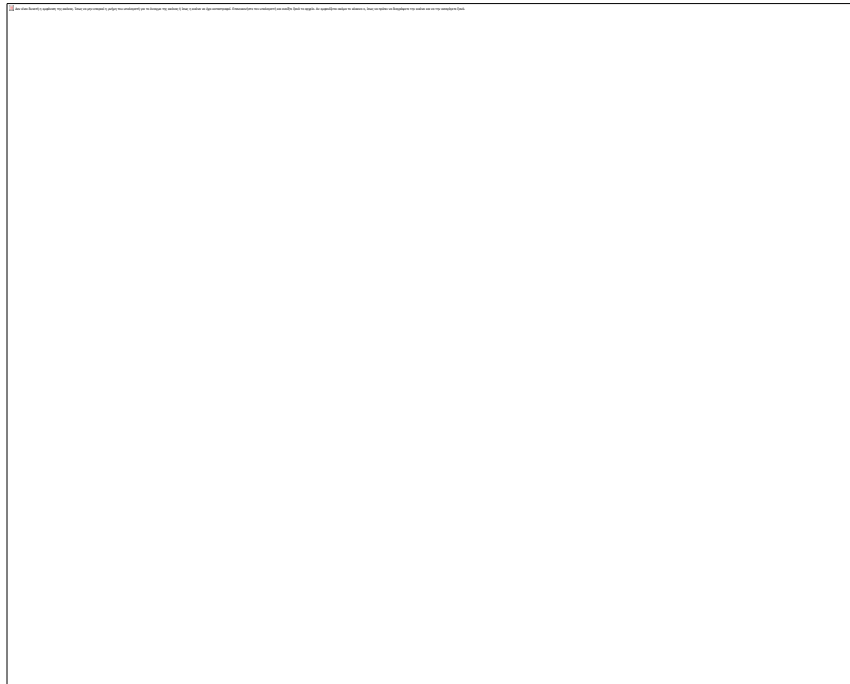
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	25.216	Not immersed
1	45.860	-16.100	30.000	25.213	Not immersed

Intact State

Longitudinal Strength



Shearing Force and Bending Moments

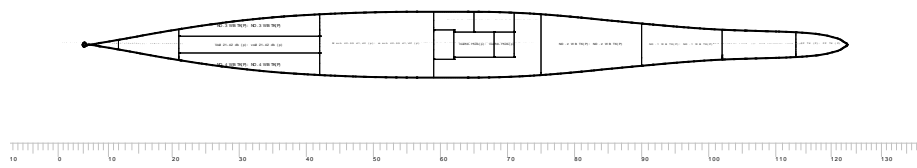
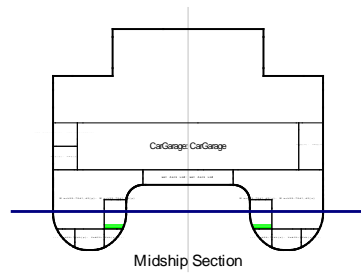
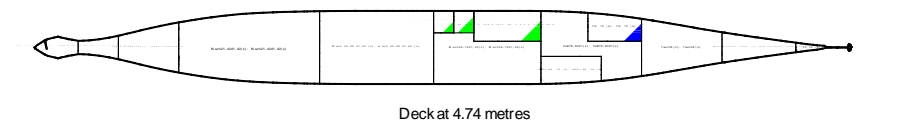
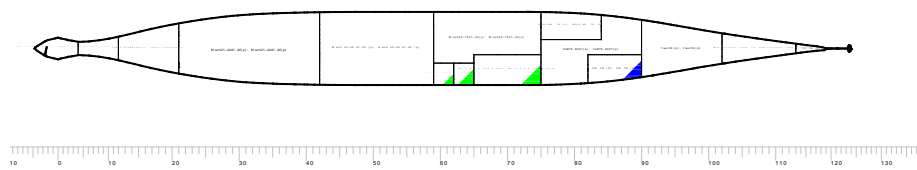
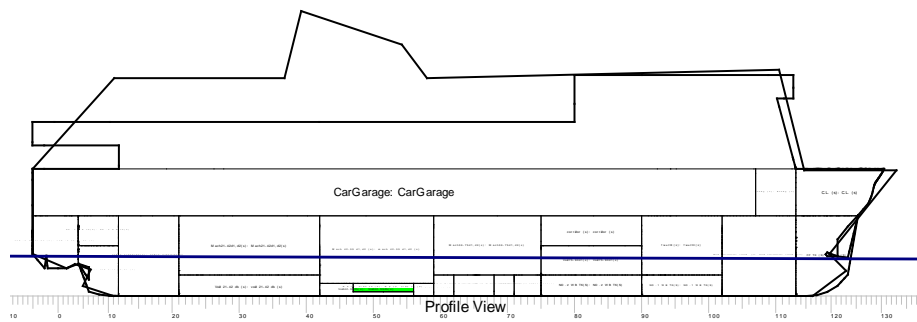
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
0.00	#0	-75.8	---	-65.0	---
0.21	--	0.0	---	-72.1	---
17.60	#25	3881.1	---	44169.1	---
41.33	--	0.0	---	98829.1	---
63.61	--	-3078.5	---	60131.7	---
70.46	--	-2871.4	---	38606.7	---
90.26	--	0.0	---	-228.2	---
91.75	--	210.6	---	-116.0	---
94.61	--	0.0	---	0.0	---
94.69	--	0.0	---	0.0	---
94.72	--	0.0	---	0.0	---
94.81	--	0.0	---	0.0	---
94.90	--	0.0	---	0.0	---
94.93	--	0.0	---	0.0	---
95.01	--	0.0	---	0.0	---
95.05	--	0.0	---	0.0	---
95.07	--	0.0	---	0.0	---
95.12	--	0.0	---	0.0	---
95.18	--	0.0	---	0.0	---
95.22	--	0.0	---	0.0	---

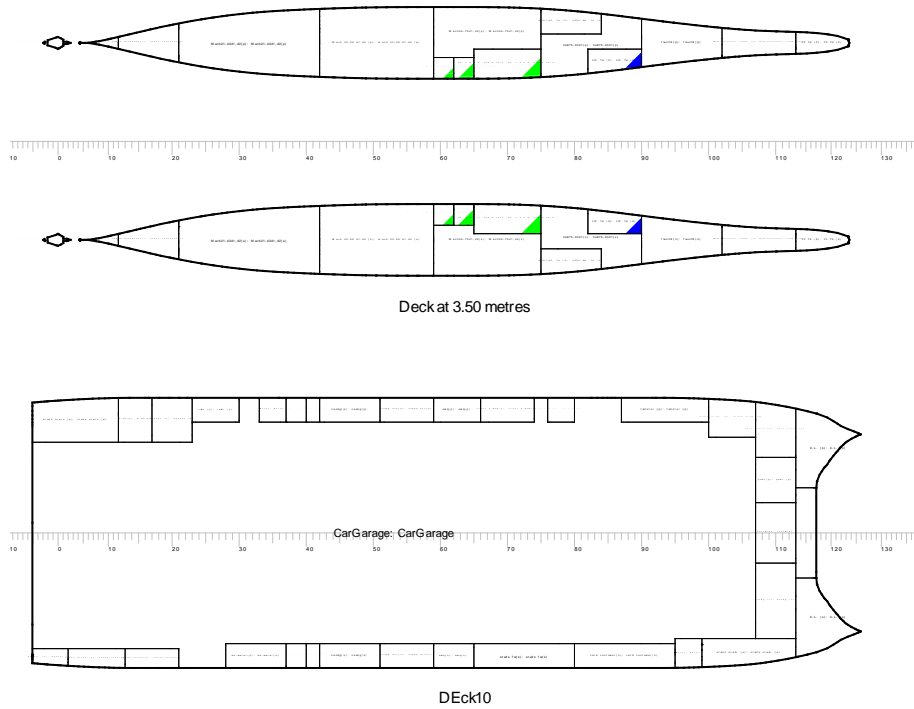
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
95.25	--	0.0	---	0.0	---
95.30	--	0.0	---	0.0	---
95.38	--	0.0	---	0.0	---
95.42	--	0.0	---	0.0	---
96.01	--	0.0	---	0.0	---
96.02	--	0.0	---	0.0	---
96.03	--	0.0	---	0.0	---
96.49	--	0.0	---	0.0	---
96.64	--	0.0	---	0.0	---
97.36	--	0.0	---	0.0	---
97.47	--	0.0	---	0.0	---
97.71	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.97	--	0.0	---	0.0	---
99.03	--	0.0	---	0.0	---
99.12	--	0.0	---	0.0	---
99.32	--	0.0	---	0.0	---
99.36	--	0.0	---	0.0	---
99.53	--	0.0	---	0.0	---
99.61	--	0.0	---	0.0	---
99.71	--	0.0	---	0.0	---
99.82	--	0.0	---	0.0	---
99.85	--	0.0	---	0.0	---
99.88	--	0.0	---	0.0	---
99.99	--	0.0	---	0.0	---
100.01	--	0.0	---	0.0	---
100.02	--	0.0	---	0.0	---
<i>Maximum BM</i>					
40.37				98870.6	---
<i>Maximum SF</i>					
17.60		3881.1	---		

Damage Case Summary Table

Case	Displ. (t)	Draft AP (m)	Draft FP (m)	LCG (m)	TCG (m)	VCG (m)	Range (degs)	Max GZ (m)	Heel (degs)	Area (m-rads)	Open-ings	Pass?

Intact State





Key

Key Name	Density (t/m3)
FW	1.0000
FO	0.9800
DO	0.9000
LO	0.9000

Intact State

Intact State

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>FO</i>										
H.F.O.SERV.TK(P): H.F.O.SERV.TK(P)	62-65	FO	30.0	0.980	6.2	48.40	-8.80	3.07	3.2	
H.F.O.SERV.TK(S): H.F.O.SERV.TK(S)	62-65	FO	30.0	0.980	6.2	48.40	8.80	3.07	3.2	
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	FO	15.0	0.980	3.1	46.00	-8.84	2.79	2.7	
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	FO	15.0	0.980	3.1	46.00	8.84	2.79	2.7	
NO.2 H.F.O.STOR.TK(P):	65-75	FO	10.0	0.980	9.4	53.54	-9.41	2.70	22.3	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
NO.2 H.F.O.STOR.TK(P)										
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	FO	10.0	0.980	9.4	53.54	9.41	2.70	22.3	
Total FO					37.4	50.60	0.00	2.84	56.4	
<i>DO</i>										
DO SERV TK(P): DO SERV TK(P)	21-25	DO	2.5	0.900	1.0	16.04	-9.20	6.07	4.3	
DO SERV TK(S): DO SERV TK(S)	34-39	DO	2.5	0.900	0.9	26.81	8.13	6.08	1.1	
Total DO					1.9	20.97	-1.26	6.08	5.4	
<i>LO</i>										
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	LO	45.0	0.900	4.3	38.80	- 11.74	0.72	1.8	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	LO	45.0	0.900	4.3	38.80	11.74	0.72	1.8	
Total LO					8.6	38.80	0.00	0.72	3.6	
<i>FW</i>										
FW TK (P): FW TK (P)	82-90	FW	11.5	1.000	7.2	66.24	-9.89	2.76	6.9	
FW TK (S): FW TK (S)	82-90	FW	11.5	1.000	7.2	66.24	9.89	2.76	6.9	
Total FW					14.4	66.24	0.00	2.76	13.8	
<i>PROVISIONS ARR</i>										
PROVISIONS					5.0	41.72	0.00	20.00	0.0	
Total PROVISIONS ARR					5.0	41.72	0.00	20.00	0.0	
<i>PASSENGERS WINTER</i>										
PASSENGERS					140.1	44.16	0.00	19.31	0.0	
Total PASSENGERS WINTER					140.1	44.16	0.00	19.31	0.0	
<i>LIQUIDS</i>										
LIQUIDS					12.5	33.89	0.00	3.27	0.0	
Total LIQUIDS					12.5	33.89	0.00	3.27	0.0	
<i>CREW</i>										
CREW					7.9	66.95	0.00	17.97	0.0	
Total CREW					7.9	66.95	0.00	17.97	0.0	
<i>30% CARS & TRUCKS</i>										
40% CARS & TRUCKS					351.6	43.14	0.00	12.30	0.0	
Total 30% CARS & TRUCKS					351.6	43.14	0.00	12.30	0.0	

Title	Frames	Cargo	% full	SG (t/m ³)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Lightweight					3478.7	47.15	0.00	12.34	0.0	
Deadweight					579.4	44.42	-0.00	12.91	79.2	
Total Displacement					4058.1	46.76	-0.00	12.42	79.2	
Buoyancy					4058.8	46.73	0.00	2.67	171791.6	
Total Buoyancy					4058.8	46.73	0.00	2.67	171791.6	

Intact State

Drafts at equilibrium angle

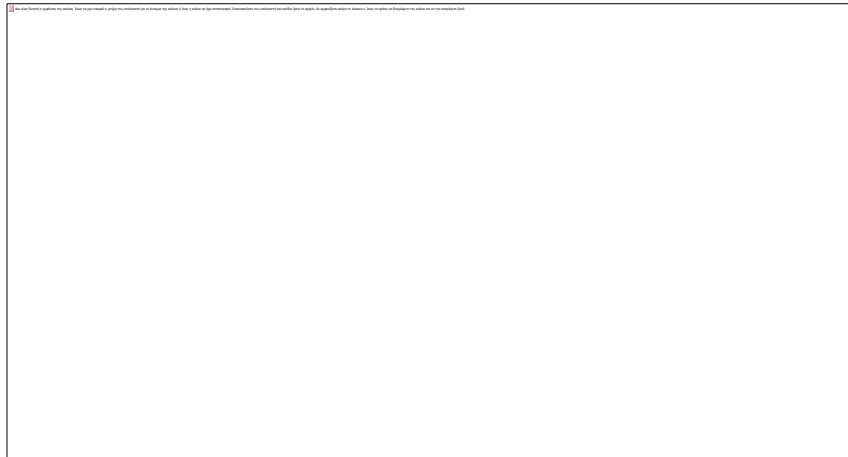
Draft at LCF	4.594 metres
Draft aft at marks	4.732 metres
Draft fwd at marks	4.444 metres
Draft at AP	4.732 metres
Draft at FP	4.444 metres
Mean draft at midships	4.588 metres

Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel	No heel	
Trim by the stern	0.288	metres
KG	12.421	metres
FSC	0.020	metres
KGf	12.440	metres
GMt	32.562	metres
BMt	42.326	metres
BMI	136.072	metres
Waterplane area	1166.81	sq.metres
LCG	46.760	metres
LCB	46.729	metres
TCB	0.000	metres
LCF	44.004	metres
TCF	0.000	metres
TPC	12.042	tonnes/cm
MTC	60.215	tonnes-m/cm
Shell thickness	0.000	mm

Intact State

WINTER ARR: Intact State



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)	Crowding (m)	Turning (m)	Wind (m)
0.00	-0.0006	32.5620	-0.288	4.588	25.41[0]	0.0004	0.7168	0.5254
5.00	2.8138	32.1425	-0.031	4.537	23.95[1]	0.0004	0.7168	0.5254
10.00	5.5133	30.6254	0.487	4.354	22.39[1]	0.0004	0.7168	0.5254
15.00	7.9360	24.3328	1.004	3.989	20.82[1]	0.0004	0.7168	0.5254
20.00	8.6575	-10.3691	1.591	3.161	19.52[1]	0.0004	0.7168	0.5254
25.00	7.7240	-10.9681	1.552	1.939	18.44[1]	0.0004	0.7168	0.5254
30.00	6.7452	-11.4214	1.495	0.697	17.23[1]	0.0004	0.7168	0.5254
35.00	5.7334	-11.7166	1.425	-0.557	15.90[1]	0.0004	0.7168	0.5254
40.00	4.7032	-11.8346	1.345	-1.815	14.45[1]	0.0004	0.7168	0.5254
45.00	3.6706	-11.7611	1.256	-3.069	12.90[1]	0.0004	0.7168	0.5254
50.00	2.6537	-11.4559	1.158	-4.314	11.26[1]	0.0004	0.7168	0.5254
55.00	1.6756	-10.8349	1.048	-5.543	9.56[1]	0.0004	0.7168	0.5254
60.00	0.7701	-9.7353	0.930	-6.755	7.81[1]	0.0004	0.7168	0.5254
65.00	-0.0111	-7.9270	0.816	-7.946	6.03[1]	0.0004	0.7168	0.5254
70.00	-0.5753	-4.2935	0.719	-9.116	4.25[1]	0.0004	0.7168	0.5254

IMO Wind heeling

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2080.411	sq.metres
Area to leeward (Area b)	4.35796	m-radians
Area to windward (Area a)	0.00426	m-radians
GZc	0.525	metres
Gust angle	0.928	degrees
Rollback angle	27.412	degrees

Property	Value	Units
Steady state angle	0.619	degrees
Max. angle to leeward	50.000	degrees
B/d'	7.018	
X1	0.800	
Cb	0.291	
Ar	0.000	
K	1.000	
Og	7.852	metres
r	1.757	
T	5.573	seconds

IMO Turning

Property	Value	Units
Area A	4.36414	m-radians
Total Area A+B	5.11082	m-radians
Steady state angle	1.267	degrees
Max. angle	60.315	degrees

IMO Passenger crowding

Property	Value	Units
Area A	5.13830	m-radians
Total Area A+B	5.13871	m-radians
Steady state angle	0.000	degrees
Max. angle	64.915	degrees

Intact State

IMO 749 Intact stability Criteria Passenger

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to 30 degrees > 0.055	3.171	0.055
2	Area under GZ curve from 30 to 40 deg. or downflood > 0.03	1.000	0.030
3	Area under GZ curve up to 40 deg. or downflood > 0.09	4.171	0.090
4	Initial GM to be at least 0.15 metres	32.562	0.150
5	GZ to be at least 0.20m at an angle > 30 degrees	6.745	0.200
6	Max GZ to be at an angle > 30 degrees	18.718	30.000 F
7	Angle of heel for passenger crowding < 10 degrees	0.000	10.000
8	Angle of heel for turning < 10 degrees	1.267	10.000
9	IMO Weather Criterion (Maximum Initial Angle Of Heel)	0.619	16.000
10	IMO Weather Criterion (Areas)	Indeterm.	1.000

**** Condition does not comply ****

Note

Term	Meaning
F	The criterion is not satisfied.
Indeterm.	The value cannot be determined, although the ship passes the test. The reason may be that the value has some very large value. Another reason may be that no profile has been defined, and thus the wind moment cannot be calculated.

Intact State

Immersion Particulars

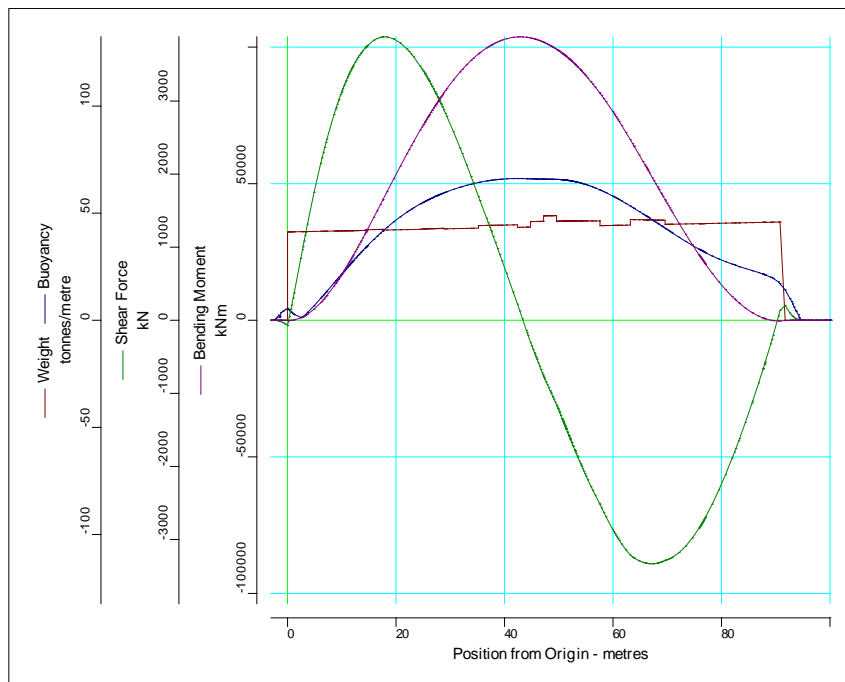
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	25.412	Not immersed
1	45.860	-16.100	30.000	25.412	Not immersed

Intact State

Longitudinal Strength



Shearing Force and Bending Moments

Distance	Shearing % of Max	Bending % of Max
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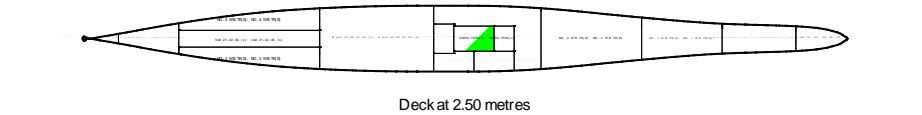
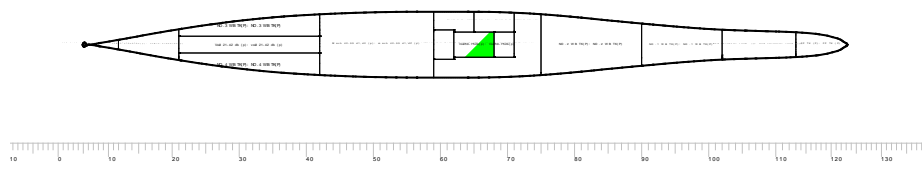
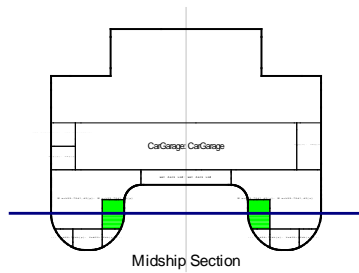
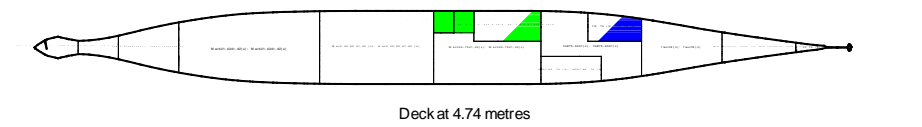
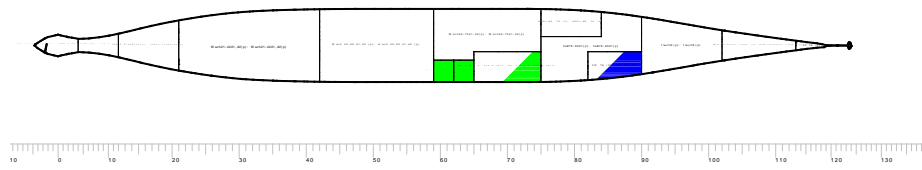
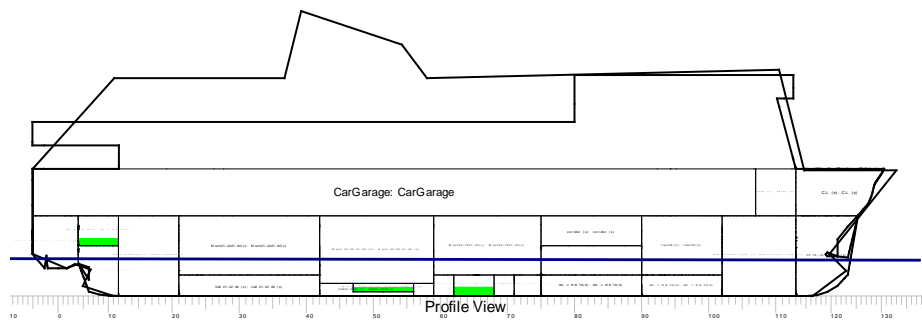
from Origin (m)		Force (kN)	allowed	Moment (kNm)	allowed
0.00	#0	-72.8	---	-61.9	---
0.21	--	0.0	---	-68.6	---
17.60	#25	3878.5	---	44210.9	---
43.40	--	0.0	---	103726.7	---
67.28	--	-3331.7	---	52096.8	---
90.31	--	0.0	---	-234.1	---
91.75	--	203.3	---	-117.9	---
94.55	--	0.0	---	0.0	---
94.56	--	0.0	---	0.0	---
94.61	--	0.0	---	0.0	---
94.69	--	0.0	---	0.0	---
94.72	--	0.0	---	0.0	---
94.81	--	0.0	---	0.0	---
94.90	--	0.0	---	0.0	---
94.93	--	0.0	---	0.0	---
95.01	--	0.0	---	0.0	---
95.05	--	0.0	---	0.0	---
95.07	--	0.0	---	0.0	---
95.12	--	0.0	---	0.0	---
95.18	--	0.0	---	0.0	---
95.22	--	0.0	---	0.0	---
95.25	--	0.0	---	0.0	---
95.30	--	0.0	---	0.0	---
95.38	--	0.0	---	0.0	---
95.42	--	0.0	---	0.0	---
96.01	--	0.0	---	0.0	---
96.02	--	0.0	---	0.0	---
96.03	--	0.0	---	0.0	---
96.49	--	0.0	---	0.0	---
96.64	--	0.0	---	0.0	---
97.36	--	0.0	---	0.0	---
97.47	--	0.0	---	0.0	---
97.71	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.97	--	0.0	---	0.0	---
99.03	--	0.0	---	0.0	---
99.12	--	0.0	---	0.0	---

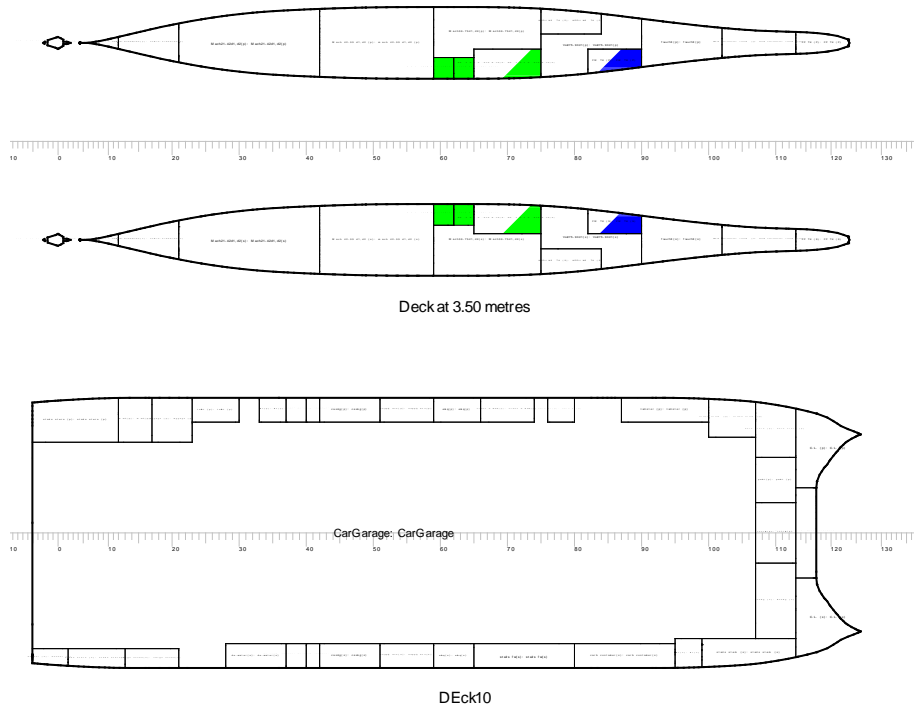
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
99.32	--	0.0	---	0.0	---
99.36	--	0.0	---	0.0	---
99.53	--	0.0	---	0.0	---
99.61	--	0.0	---	0.0	---
99.71	--	0.0	---	0.0	---
99.82	--	0.0	---	0.0	---
99.85	--	0.0	---	0.0	---
99.88	--	0.0	---	0.0	---
99.99	--	0.0	---	0.0	---
100.01	--	0.0	---	0.0	---
100.02	--	0.0	---	0.0	---
<i>Maximum BM</i>					
42.82				103762.6	---
<i>Maximum SF</i>					
17.60		3878.5	---		

Damage Case Summary Table

Case	Displ. (t)	Draft AP (m)	Draft FP (m)	LCG (m)	TCG (m)	VCG (m)	Range (degs)	Max GZ (m)	Heel (degs)	Area (m-rads)	Open-ings	Pass?
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Intact State





Key

Key Name	Density (t/m3)
WB	1.0250
FW	1.0000
FO	0.9800
DO	0.9000
LO	0.9000

Intact State

Intact State

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>FO</i>										
H.F.O.SERV.TK(P): H.F.O.SERV.TK(P)	62-65	FO	100.0	0.980	20.5	48.40	-8.73	4.29	0.0	
H.F.O.SERV.TK(S): H.F.O.SERV.TK(S)	62-65	FO	100.0	0.980	20.5	48.40	8.73	4.29	0.0	
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	FO	100.0	0.980	20.5	46.00	-8.73	4.29	0.0	
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	FO	100.0	0.980	20.5	46.00	8.73	4.29	0.0	
NO.1 H.F.O.STOR.TK(P):	62-68	FO	42.0	0.980	14.2	49.60	-	0.56	10.4	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
NO.1 H.F.O.STOR.TK(P)							11.74			
NO.1 H.F.O.STOR.TK(S): NO.1 H.F.O.STOR.TK(S)	62-68	FO	42.0	0.980	14.2	49.60	11.74	0.56	10.4	
NO.2 H.F.O.STOR.TK(P): NO.2 H.F.O.STOR.TK(P)	65-75	FO	35.0	0.980	33.1	53.56	-9.32	3.16	28.3	
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	FO	35.0	0.980	33.1	53.56	9.32	3.16	28.3	
Total FO					176.6	49.96	0.00	3.27	77.4	
<i>DO</i>										
DO SERV TK(P): DO SERV TK(P)	21-25	DO	15.0	0.900	6.2	16.03	-9.15	6.41	5.3	
DO SERV TK(S): DO SERV TK(S)	34-39	DO	15.0	0.900	5.2	26.81	8.07	6.46	1.9	
Total DO					11.4	20.97	-1.26	6.44	7.2	
<i>LO</i>										
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	LO	50.0	0.900	4.8	38.80	- 11.74	0.75	1.8	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	LO	50.0	0.900	4.8	38.80	11.74	0.75	1.8	
Total LO					9.6	38.80	0.00	0.75	3.6	
<i>FW</i>										
FW TK (P): FW TK (P)	82-90	FW	55.0	1.000	34.3	66.25	-9.69	3.63	15.0	
FW TK (S): FW TK (S)	82-90	FW	55.0	1.000	34.3	66.25	9.69	3.63	15.0	
Total FW					68.6	66.25	0.00	3.63	30.0	
<i>WB</i>										
NO.5 WB TK(S): NO.5 WB TK(S)	4-12	WB	14.8	1.025	20.0	4.90	11.75	6.46	63.4	
NO.5 WB TK(p): NO.5 WB TK(p)	4-12	WB	14.8	1.025	20.0	4.90	- 11.75	6.46	63.4	
Total WB					40.0	4.90	0.00	6.46	126.8	
<i>CREW</i>										
CREW					7.9	66.95	0.00	17.97	0.0	
Total CREW					7.9	66.95	0.00	17.97	0.0	
Lightweight					3478.7	47.15	0.00	12.34	0.0	
Deadweight					314.0	46.81	-0.05	4.16	244.9	
Total Displacement					3792.7	47.12	-0.00	11.66	244.9	

Title	Frames	Cargo	% full	SG (t/m ³)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Buoyancy					3792.7	47.11	-0.00	2.54	168879.9	
Total Buoyancy					3792.7	47.11	-0.00	2.54	168879.9	

Intact State

Drafts at equilibrium angle

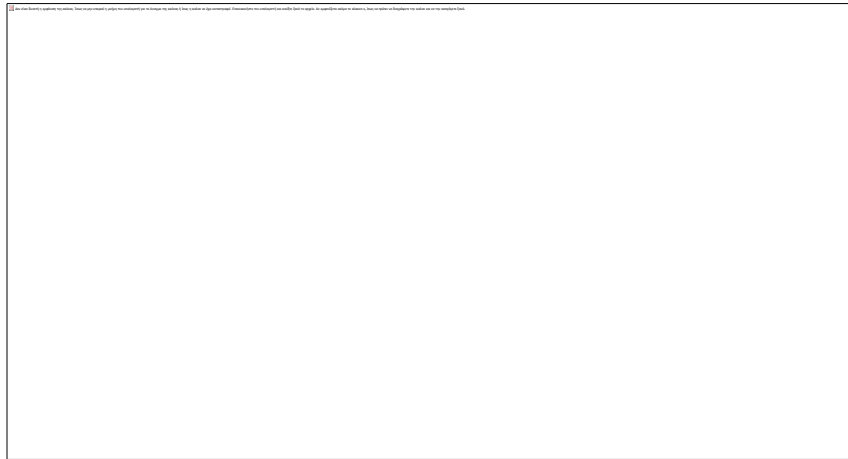
Draft at LCF	4.370 metres
Draft aft at marks	4.444 metres
Draft fwd at marks	4.291 metres
Draft at AP	4.444 metres
Draft at FP	4.291 metres
Mean draft at midships	4.368 metres

Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel to port	0.01 degrees
Trim by the stern	0.153 metres
KG	11.663 metres
FSC	0.065 metres
KGf	11.727 metres
GMt	35.339 metres
BMt	44.528 metres
BMI	141.535 metres
Waterplane area	1147.60 sq.metres
LCG	47.122 metres
LCB	47.107 metres
TCB	-0.005 metres
LCF	44.672 metres
TCF	-0.001 metres
TPC	11.843 tonnes/cm
MTC	58.525 tonnes-m/cm
Shell thickness	0.000 mm

Intact State

EMPTY DEPARTURTE: Intact State



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)	Crowding (m)	Turning (m)	Wind (m)
0.00	-0.0038	35.3403	-0.153	4.368	25.63[0]	0.0004	0.6742	0.5678
5.00	3.0384	34.5951	0.115	4.315	24.17[1]	0.0004	0.6742	0.5678
10.00	5.9409	32.7217	0.638	4.128	22.62[1]	0.0004	0.6742	0.5678
15.00	8.4581	23.8054	1.192	3.744	21.06[1]	0.0004	0.6742	0.5678
20.00	8.8388	-9.8737	1.740	2.827	19.85[1]	0.0004	0.6742	0.5678
25.00	7.9484	-10.4747	1.691	1.615	18.77[1]	0.0004	0.6742	0.5678
30.00	7.0121	-10.9400	1.625	0.386	17.54[1]	0.0004	0.6742	0.5678
35.00	6.0413	-11.2544	1.547	-0.853	16.19[1]	0.0004	0.6742	0.5678
40.00	5.0498	-11.4053	1.459	-2.095	14.73[1]	0.0004	0.6742	0.5678
45.00	4.0529	-11.3647	1.363	-3.331	13.16[1]	0.0004	0.6742	0.5678
50.00	3.0691	-11.0885	1.261	-4.558	11.51[1]	0.0004	0.6742	0.5678
55.00	2.1214	-10.5005	1.150	-5.769	9.79[1]	0.0004	0.6742	0.5678
60.00	1.2433	-9.4359	1.030	-6.959	8.02[1]	0.0004	0.6742	0.5678
65.00	0.4877	-7.6222	0.909	-8.129	6.22[1]	0.0004	0.6742	0.5678
70.00	-0.0473	-4.0210	0.819	-9.276	4.41[1]	0.0004	0.6742	0.5678

IMO Wind heeling

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.370	sq.metres
Area to leeward (Area b)	4.59246	m-radians
Area to windward (Area a)	0.00463	m-radians
GZc	0.568	metres
Gust angle	0.930	degrees
Rollback angle	27.289	degrees
Steady state angle	0.621	degrees
Max. angle to leeward	50.000	degrees

Property	Value	Units
B/d'	7.372	
X1	0.800	
Cb	0.285	
Ar	0.000	
K	1.000	
Og	7.360	metres
r	1.741	
T	5.438	seconds

IMO Turning

Property	Value	Units
Area A	4.77381	m-radians
Total Area A+B	5.51638	m-radians
Steady state angle	1.104	degrees
Max. angle	63.656	degrees

IMO Passenger crowding

Property	Value	Units
Area A	5.54669	m-radians
Total Area A+B	5.54717	m-radians
Steady state angle	0.007	degrees
Max. angle	69.372	degrees

Intact State

IMO 749 Intact stability Criteria Passenger

#	Criterion	Actual Value	Critical Value	
1	Area under GZ curve up to 30 degrees > 0.055	3.322	0.055	
2	Area under GZ curve from 30 to 40 deg. or downflood > 0.03	1.054	0.030	
3	Area under GZ curve up to 40 deg. or downflood > 0.09	4.376	0.090	
4	Initial GM to be at least 0.15 metres	35.340	0.150	
5	GZ to be at least 0.20m at an angle > 30 degrees	7.012	0.200	
6	Max GZ to be at an angle > 30 degrees	17.975	30.000	F
7	Angle of heel for passenger crowding < 10 degrees	0.007	10.000	
8	Angle of heel for turning < 10 degrees	1.104	10.000	
9	IMO Weather Criterion (Maximum Initial Angle Of Heel)	0.621	16.000	
10	IMO Weather Criterion (Areas)	Indeterm.	1.000	

**** Condition does not comply ****

Note

Term	Meaning
F	The criterion is not satisfied.
Indeterm.	The value cannot be determined, although the ship passes the test. The reason may be that the value has some very large value. Another reason may be that no profile has been defined, and thus the wind moment cannot be calculated.

Intact State

Immersion Particulars

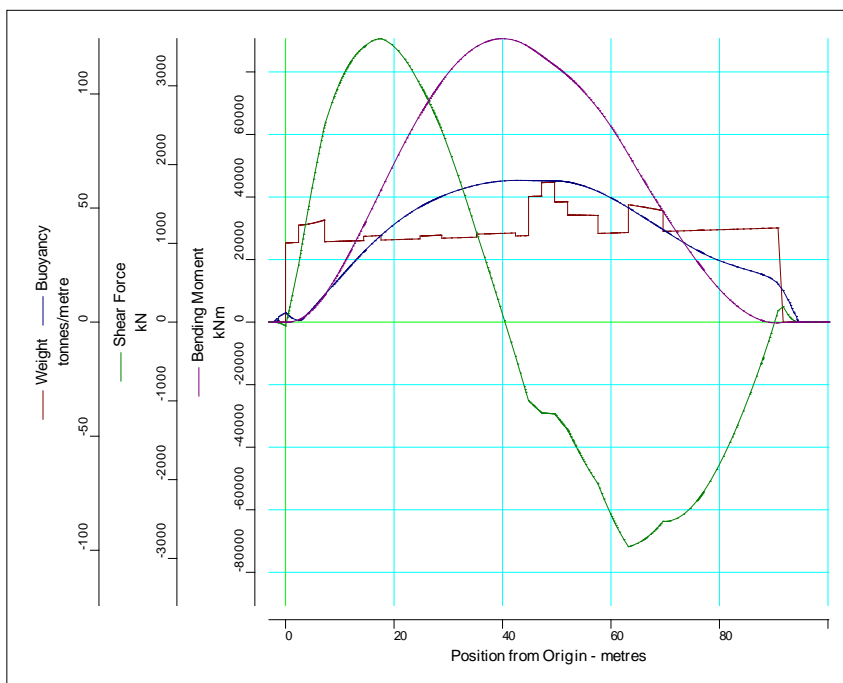
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	25.634	Not immersed
1	45.860	-16.100	30.000	25.631	Not immersed

Intact State

Longitudinal Strength



Shearing Force and Bending Moments

Distance from Origin (m)	Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed

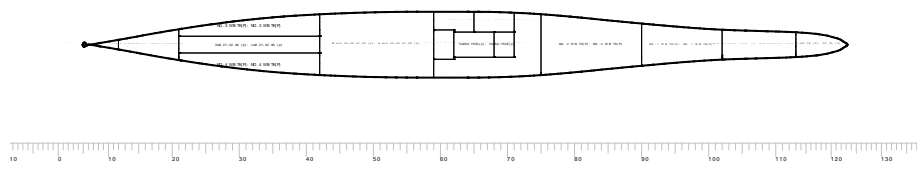
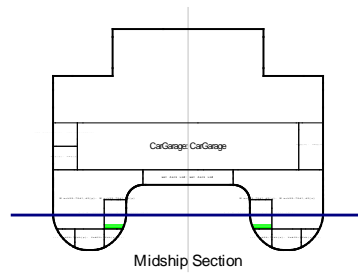
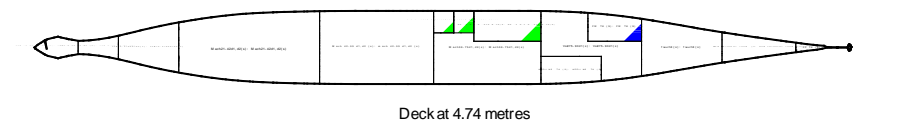
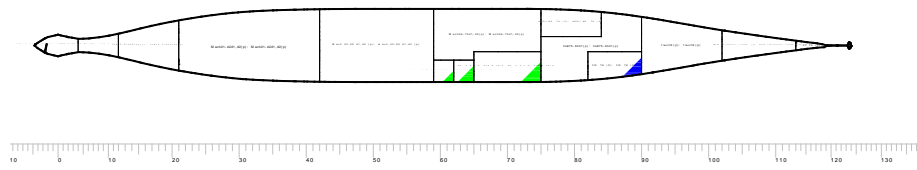
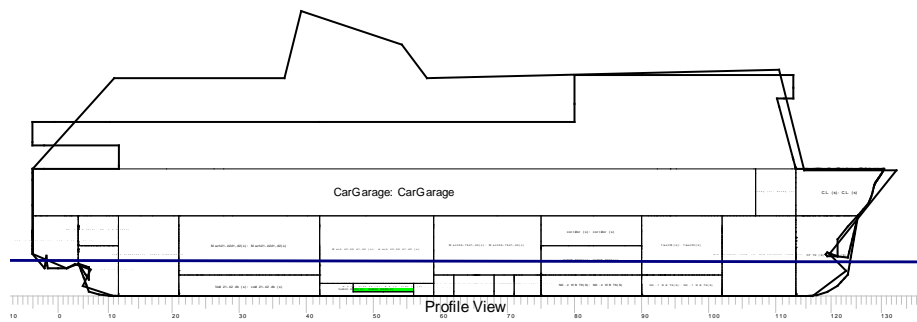
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
0.00	#0	-49.0	---	-37.6	---
0.16	--	0.0	---	-41.3	---
17.60	#25	3598.7	---	42257.9	---
40.45	--	0.0	---	90605.7	---
63.20	#82	-2850.5	---	53614.7	---
69.98	--	-2530.9	---	34383.2	---
90.17	--	0.0	---	-223.8	---
91.75	--	195.8	---	-109.9	---
94.50	--	0.0	---	0.0	---
94.55	--	0.0	---	0.0	---
94.56	--	0.0	---	0.0	---
94.61	--	0.0	---	0.0	---
94.69	--	0.0	---	0.0	---
94.72	--	0.0	---	0.0	---
94.81	--	0.0	---	0.0	---
94.90	--	0.0	---	0.0	---
94.93	--	0.0	---	0.0	---
95.01	--	0.0	---	0.0	---
95.05	--	0.0	---	0.0	---
95.07	--	0.0	---	0.0	---
95.12	--	0.0	---	0.0	---
95.18	--	0.0	---	0.0	---
95.22	--	0.0	---	0.0	---
95.25	--	0.0	---	0.0	---
95.30	--	0.0	---	0.0	---
95.38	--	0.0	---	0.0	---
95.42	--	0.0	---	0.0	---
96.01	--	0.0	---	0.0	---
96.02	--	0.0	---	0.0	---
96.03	--	0.0	---	0.0	---
96.49	--	0.0	---	0.0	---
96.64	--	0.0	---	0.0	---
97.36	--	0.0	---	0.0	---
97.47	--	0.0	---	0.0	---
97.71	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---

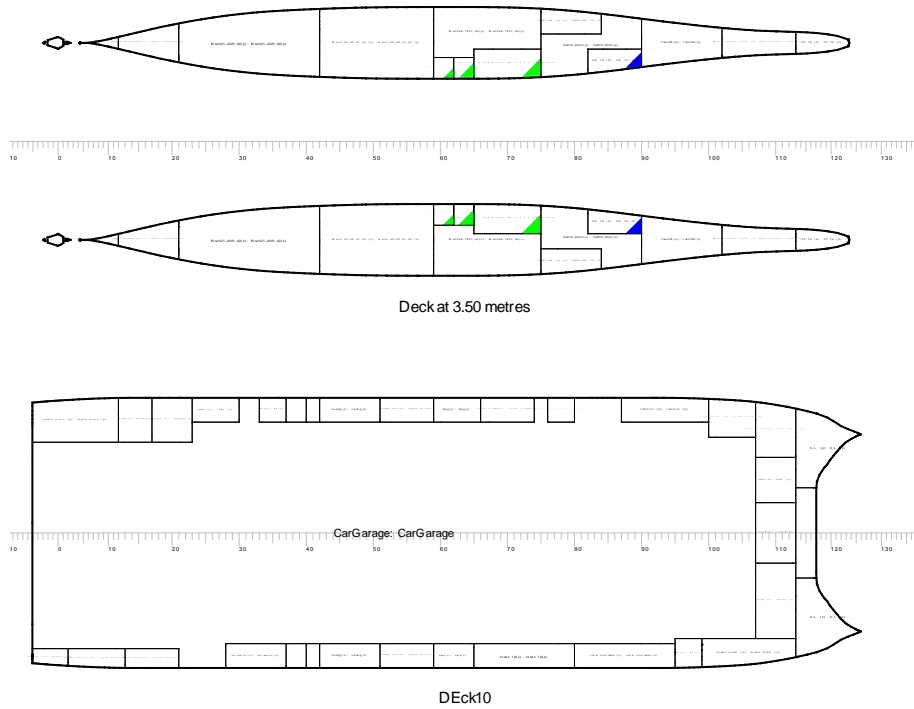
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
98.97	--	0.0	---	0.0	---
99.03	--	0.0	---	0.0	---
99.12	--	0.0	---	0.0	---
99.32	--	0.0	---	0.0	---
99.36	--	0.0	---	0.0	---
99.53	--	0.0	---	0.0	---
99.61	--	0.0	---	0.0	---
99.71	--	0.0	---	0.0	---
99.82	--	0.0	---	0.0	---
99.85	--	0.0	---	0.0	---
99.88	--	0.0	---	0.0	---
99.99	--	0.0	---	0.0	---
100.01	--	0.0	---	0.0	---
100.02	--	0.0	---	0.0	---
<i>Maximum BM</i>					
40.37				90624.0	---
<i>Maximum SF</i>					
17.60		3598.7	---		

Damage Case Summary Table

Case	Displ. (t)	Draft AP (m)	Draft FP (m)	LCG (m)	TCG (m)	VCG (m)	Range (degs)	Max GZ (m)	Heel (degs)	Area (m-rads)	Openings	Pass?

Intact State





Key

Key Name	Density (t/m3)
FW	1.0000
FO	0.9800
DO	0.9000
LO	0.9000

Intact State

Intact State

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>FO</i>										
H.F.O.SERV.TK(P): H.F.O.SERV.TK(P)	62-65	FO	30.0	0.980	6.2	48.40	-8.80	3.07	3.2	
H.F.O.SERV.TK(S): H.F.O.SERV.TK(S)	62-65	FO	30.0	0.980	6.2	48.40	8.80	3.07	3.2	
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	FO	15.0	0.980	3.1	46.00	-8.84	2.79	2.7	
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	FO	15.0	0.980	3.1	46.00	8.84	2.79	2.7	
NO.2 H.F.O.STOR.TK(P):	65-75	FO	10.0	0.980	9.4	53.54	-9.41	2.70	22.3	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
NO.2 H.F.O.STOR.TK(P)										
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	FO	10.0	0.980	9.4	53.54	9.41	2.70	22.3	
Total FO					37.4	50.60	0.00	2.84	56.4	
<i>DO</i>										
DO SERV TK(P): DO SERV TK(P)	21-25	DO	2.5	0.900	1.0	16.04	-9.20	6.07	4.3	
DO SERV TK(S): DO SERV TK(S)	34-39	DO	2.5	0.900	0.9	26.81	8.13	6.08	1.1	
Total DO					1.9	20.97	-1.26	6.08	5.4	
<i>LO</i>										
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	LO	45.0	0.900	4.3	38.80	- 11.74	0.72	1.8	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	LO	45.0	0.900	4.3	38.80	11.74	0.72	1.8	
Total LO					8.6	38.80	0.00	0.72	3.6	
<i>FW</i>										
FW TK (P): FW TK (P)	82-90	FW	11.5	1.000	7.2	66.24	-9.89	2.76	6.9	
FW TK (S): FW TK (S)	82-90	FW	11.5	1.000	7.2	66.24	9.89	2.76	6.9	
Total FW					14.4	66.24	0.00	2.76	13.8	
<i>CREW</i>										
CREW					7.9	66.95	0.00	17.97	0.0	
Total CREW					7.9	66.95	0.00	17.97	0.0	
Lightweight					3478.7	47.15	0.00	12.34	0.0	
Deadweight					70.1	53.40	-0.03	4.36	79.2	
Total Displacement					3548.8	47.27	-0.00	12.18	79.2	
Buoyancy					3548.8	47.26	0.00	2.42	166474.6	
Total Buoyancy					3548.8	47.26	0.00	2.42	166474.6	

Intact State

Drafts at equilibrium angle

Draft at LCF	4.161 metres
Draft aft at marks	4.236 metres
Draft fwd at marks	4.084 metres
Draft at AP	4.236 metres
Draft at FP	4.084 metres

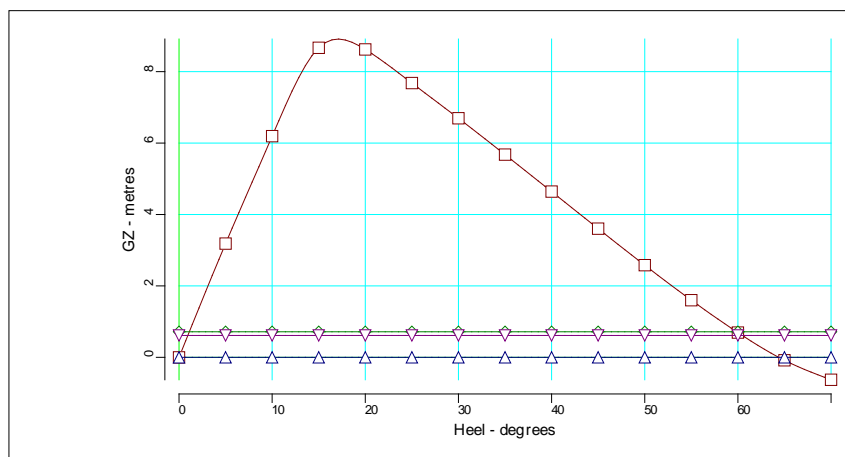
Draft at LCF	4.161	metres
Mean draft at midships	4.160	metres

Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel	No heel	
Trim by the stern	0.152	metres
KG	12.182	metres
FSC	0.022	metres
KGf	12.205	metres
GMt	37.127	metres
BMt	46.910	metres
BMI	148.573	metres
Waterplane area	1131.93	sq.metres
LCG	47.273	metres
LCB	47.257	metres
TCB	0.000	metres
LCF	45.205	metres
TCF	0.000	metres
TPC	11.681	tonnes/cm
MTC	57.485	tonnes-m/cm
Shell thickness	0.000	mm

Intact State

EMPTY ARRIVAL: Intact State



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLRad (m)	Freeboard (m)	Crowding (m)	Turning (m)	Wind (m)
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Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)	Crowding (m)	Turning (m)	Wind (m)
0.00	-0.0007	37.1273	-0.151	4.160	25.84[0]	0.0004	0.7153	0.6125
5.00	3.1844	36.0800	0.119	4.105	24.38[1]	0.0004	0.7153	0.6125
10.00	6.1929	33.6051	0.650	3.914	22.83[1]	0.0004	0.7153	0.6125
15.00	8.6674	20.9415	1.259	3.505	21.30[1]	0.0004	0.7153	0.6125
20.00	8.6210	-10.4846	1.719	2.508	20.17[1]	0.0004	0.7153	0.6125
25.00	7.6792	-11.0549	1.668	1.308	19.07[1]	0.0004	0.7153	0.6125
30.00	6.6936	-11.4879	1.601	0.091	17.84[1]	0.0004	0.7153	0.6125
35.00	5.6764	-11.7726	1.522	-1.134	16.47[1]	0.0004	0.7153	0.6125
40.00	4.6410	-11.8950	1.435	-2.359	14.99[1]	0.0004	0.7153	0.6125
45.00	3.6028	-11.8208	1.341	-3.580	13.41[1]	0.0004	0.7153	0.6125
50.00	2.5812	-11.4981	1.244	-4.789	11.74[1]	0.0004	0.7153	0.6125
55.00	1.6005	-10.8569	1.142	-5.981	10.00[1]	0.0004	0.7153	0.6125
60.00	0.6942	-9.7357	1.031	-7.152	8.21[1]	0.0004	0.7153	0.6125
65.00	-0.0829	-7.8034	0.919	-8.301	6.39[1]	0.0004	0.7153	0.6125
70.00	-0.6283	-4.2029	0.844	-9.426	4.56[1]	0.0004	0.7153	0.6125

IMO Wind heeling

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2120.917	sq.metres
Area to leeward (Area b)	4.41007	m-radians
Area to windward (Area a)	0.00508	m-radians
GZc	0.613	metres
Gust angle	0.950	degrees
Rollback angle	28.433	degrees
Steady state angle	0.633	degrees
Max. angle to leeward	50.000	degrees
B/d'	7.740	
X1	0.800	
Cb	0.280	
Ar	0.000	
K	1.000	
Og	8.044	metres
r	1.890	
T	5.394	seconds

IMO Turning

Property	Value	Units
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Property	Value	Units
Area A	4.47888	m-radians
Total Area A+B	5.21947	m-radians
Steady state angle	1.110	degrees
Max. angle	59.876	degrees

IMO Passenger crowding

Property	Value	Units
Area A	5.24640	m-radians
Total Area A+B	5.24687	m-radians
Steady state angle	0.002	degrees
Max. angle	64.400	degrees

Intact State

IMO 749 Intact stability Criteria Passenger

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to 30 degrees > 0.055	3.320	0.055
2	Area under GZ curve from 30 to 40 deg. or downflood > 0.03	0.990	0.030
3	Area under GZ curve up to 40 deg. or downflood > 0.09	4.310	0.090
4	Initial GM to be at least 0.15 metres	37.127	0.150
5	GZ to be at least 0.20m at an angle > 30 degrees	6.694	0.200
6	Max GZ to be at an angle > 30 degrees	17.010	30.000 F
7	Angle of heel for passenger crowding < 10 degrees	0.002	10.000
8	Angle of heel for turning < 10 degrees	1.110	10.000
9	IMO Weather Criterion (Maximum Initial Angle Of Heel)	0.633	16.000
10	IMO Weather Criterion (Areas)	868.491	1.000

**** Condition does not comply ****

Note

Term	Meaning
F	The criterion is not satisfied.

Intact State

Immersion Particulars

State of Openings = X-ray: Normal condition

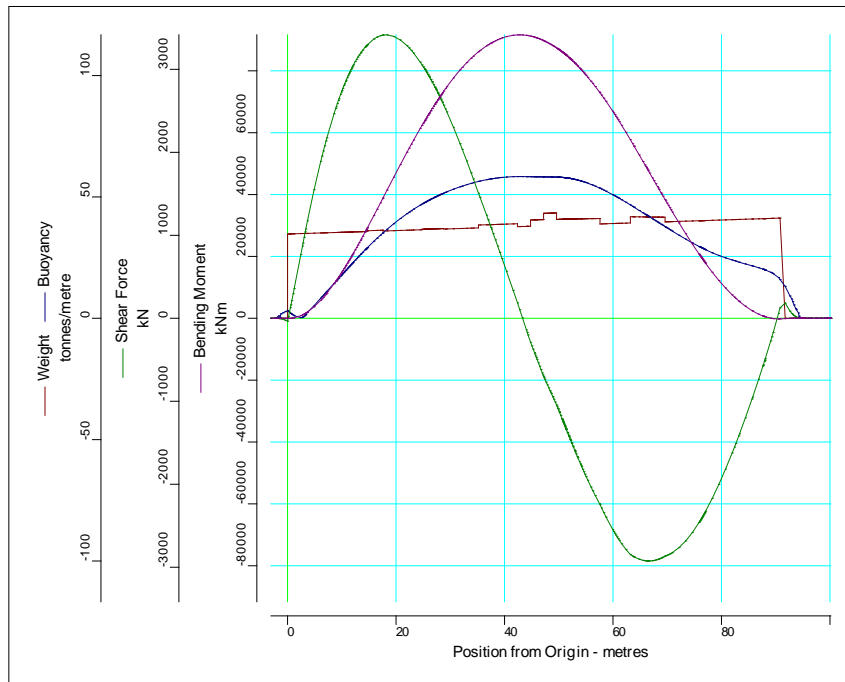
Deck Edge

Point	X position	Y position	Z position	Ht. above	Flood
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#	(m)	(m)	(m)	WL (m)	Angle (deg)
0	45.860	16.100	30.000	25.840	Not immersed
1	45.860	-16.100	30.000	25.840	Not immersed

Intact State

Longitudinal Strength



Shearing Force and Bending Moments

Distance from Origin (m)	Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
-2.45	0.0	---	0.0	---
0.00 #0	-35.4	---	-25.2	---
0.11	0.0	---	-26.2	---
18.35	3415.5	---	41457.5	---
43.33	0.0	---	91603.4	---
66.53	-2924.0	---	47656.0	---
90.27	0.0	---	-191.3	---
91.75	182.9	---	-95.6	---
94.50	0.0	---	0.0	---
94.55	0.0	---	0.0	---
94.56	0.0	---	0.0	---
94.61	0.0	---	0.0	---
94.69	0.0	---	0.0	---

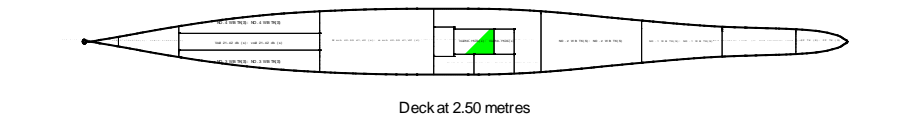
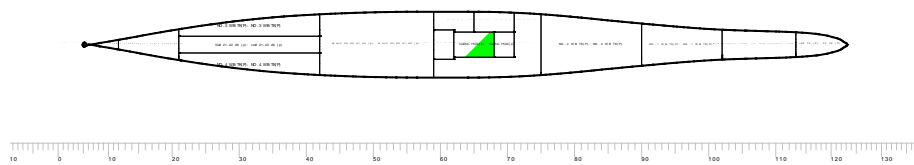
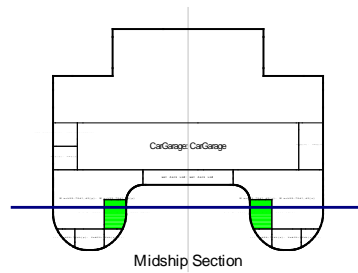
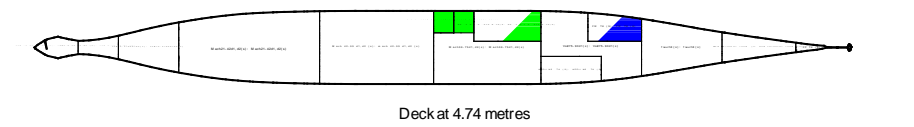
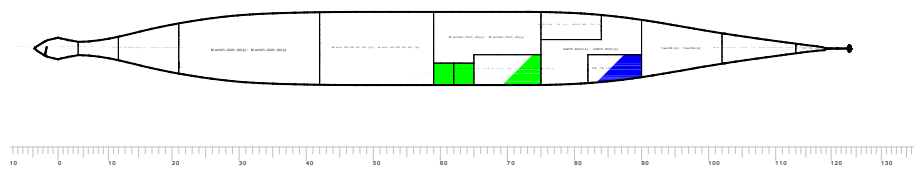
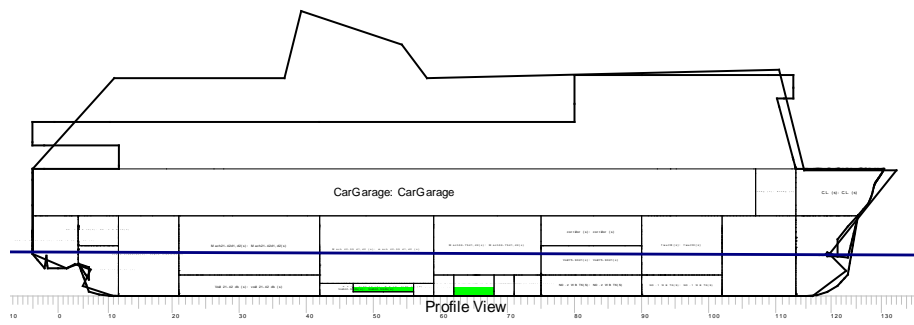
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
94.72	--	0.0	---	0.0	---
94.81	--	0.0	---	0.0	---
94.90	--	0.0	---	0.0	---
94.93	--	0.0	---	0.0	---
95.01	--	0.0	---	0.0	---
95.05	--	0.0	---	0.0	---
95.07	--	0.0	---	0.0	---
95.12	--	0.0	---	0.0	---
95.18	--	0.0	---	0.0	---
95.22	--	0.0	---	0.0	---
95.25	--	0.0	---	0.0	---
95.30	--	0.0	---	0.0	---
95.38	--	0.0	---	0.0	---
95.42	--	0.0	---	0.0	---
96.01	--	0.0	---	0.0	---
96.02	--	0.0	---	0.0	---
96.03	--	0.0	---	0.0	---
96.49	--	0.0	---	0.0	---
96.64	--	0.0	---	0.0	---
97.36	--	0.0	---	0.0	---
97.47	--	0.0	---	0.0	---
97.71	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.97	--	0.0	---	0.0	---
99.03	--	0.0	---	0.0	---
99.12	--	0.0	---	0.0	---
99.32	--	0.0	---	0.0	---
99.36	--	0.0	---	0.0	---
99.53	--	0.0	---	0.0	---
99.61	--	0.0	---	0.0	---
99.71	--	0.0	---	0.0	---
99.82	--	0.0	---	0.0	---
99.85	--	0.0	---	0.0	---
99.88	--	0.0	---	0.0	---
99.99	--	0.0	---	0.0	---
100.01	--	0.0	---	0.0	---

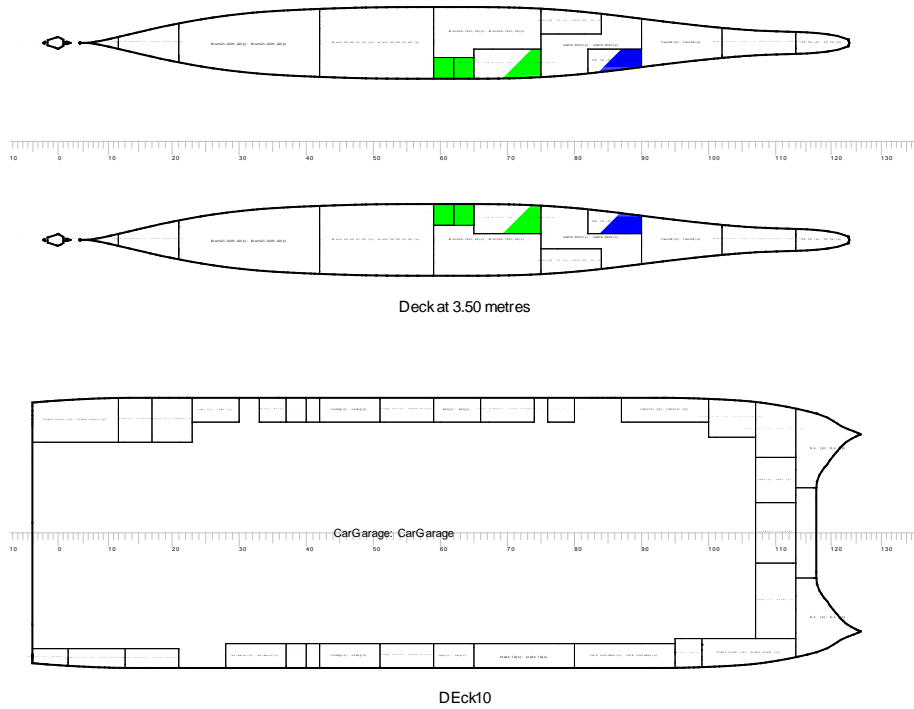
Distance from Origin (m)	Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
100.02	0.0	---	0.0	---
<i>Maximum BM</i>				
42.82			91635.4	---
<i>Maximum SF</i>				
18.35	3415.5	---		

Damage Case Summary Table

Case	Displ. (t)	Draft AP (m)	Draft FP (m)	LCG (m)	TCG (m)	VCG (m)	Range (degs)	Max GZ (m)	Heel (degs)	Area (m-rads)	Openings	Pass?
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Intact State





Key

Key Name	Density (t/m3)
FW	1.0000
FO	0.9800
DO	0.9000
LO	0.9000

Intact State

Intact State

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>FO</i>										
H.F.O.SERV.TK(P): H.F.O.SERV.TK(P)	62-65	FO	100.0	0.980	20.5	48.40	-8.73	4.29	0.0	
H.F.O.SERV.TK(S): H.F.O.SERV.TK(S)	62-65	FO	100.0	0.980	20.5	48.40	8.73	4.29	0.0	
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	FO	100.0	0.980	20.5	46.00	-8.73	4.29	0.0	
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	FO	100.0	0.980	20.5	46.00	8.73	4.29	0.0	
NO.1 H.F.O.STOR.TK(P): NO.1	62-68	FO	42.0	0.980	14.2	49.60	- 11.74	0.56	10.4	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>H.F.O.STOR.TK(P)</i>										
NO.1 H.F.O.STOR.TK(S): NO.1 H.F.O.STOR.TK(S)	62-68	FO	42.0	0.980	14.2	49.60	11.74	0.56	10.4	
NO.2 H.F.O.STOR.TK(P): NO.2 H.F.O.STOR.TK(P)	65-75	FO	35.0	0.980	33.1	53.56	-9.32	3.16	28.3	
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	FO	35.0	0.980	33.1	53.56	9.32	3.16	28.3	
Total FO					176.6	49.96	0.00	3.27	77.4	
<i>DO</i>										
DO SERV TK(P): DO SERV TK(P)	21-25	DO	15.0	0.900	6.2	16.03	-9.15	6.41	5.3	
DO SERV TK(S): DO SERV TK(S)	34-39	DO	15.0	0.900	5.2	26.81	8.07	6.46	1.9	
Total DO					11.4	20.97	-1.26	6.44	7.2	
<i>LO</i>										
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	LO	50.0	0.900	4.8	38.80	- 11.74	0.75	1.8	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	LO	50.0	0.900	4.8	38.80	11.74	0.75	1.8	
Total LO					9.6	38.80	0.00	0.75	3.6	
<i>FW</i>										
FW TK (P): FW TK (P)	82-90	FW	55.0	1.000	34.3	66.25	-9.69	3.63	15.0	
FW TK (S): FW TK (S)	82-90	FW	55.0	1.000	34.3	66.25	9.69	3.63	15.0	
Total FW					68.6	66.25	0.00	3.63	30.0	
<i>PROVISIONS DEP</i>										
PROVISIONS					30.4	41.72	0.00	20.00	0.0	
Total PROVISIONS DEP					30.4	41.72	0.00	20.00	0.0	
<i>PASSENGERS</i>										
PASSENGERS					211.4	39.45	0.00	20.45	0.0	
Total PASSENGERS					211.4	39.45	0.00	20.45	0.0	
<i>LIQUIDS</i>										
LIQUIDS					12.5	33.89	0.00	3.27	0.0	
Total LIQUIDS					12.5	33.89	0.00	3.27	0.0	
<i>CREW</i>										
CREW					7.9	66.95	0.00	17.97	0.0	
Total CREW					7.9	66.95	0.00	17.97	0.0	
<i>ALL CARS (WITH 7</i>										

Title	Frames	Cargo	% full	SG (t/m ³)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>TRUCKS)</i>										
ALL CARS (WITH 7 TRUCKS)					656.8	41.62	0.00	12.89	0.0	
Total ALL CARS (WITH 7 TRUCKS)					656.8	41.62	0.00	12.89	0.0	
Lightweight					3478.7	47.15	0.00	12.34	0.0	
Deadweight					1185.1	43.77	-0.01	12.22	118.1	
Total Displacement					4663.8	46.29	-0.00	12.31	118.1	
Buoyancy					4663.8	46.26	-0.00	2.95	177216.4	
Total Buoyancy					4663.8	46.26	-0.00	2.95	177216.4	

Intact State

Drafts at equilibrium angle

Draft at LCF	5.093	metres
Draft aft at marks	5.240	metres
Draft fwd at marks	4.926	metres
Draft at AP	5.240	metres
Draft at FP	4.926	metres
Mean draft at midships	5.083	metres

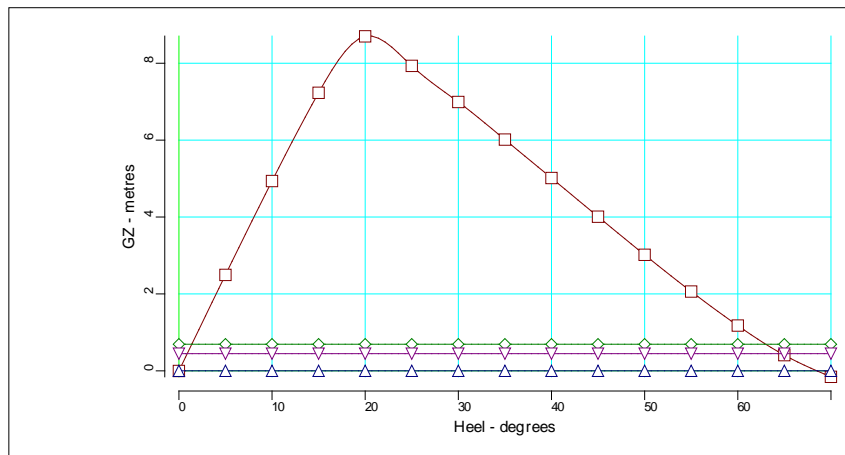
Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel to port	0.01	degrees
Trim by the stern	0.314	metres
KG	12.310	metres
FSC	0.025	metres
KGf	12.336	metres
GMt	28.613	metres
BMt	37.999	metres
BMI	123.778	metres
Waterplane area	1202.20	sq.metres
LCG	46.291	metres
LCB	46.259	metres
TCB	-0.004	metres
LCF	42.847	metres
TCF	-0.002	metres
TPC	12.407	tonnes/cm

Density of water	1.0320	tonnes/cu.m
MTC	62.939	tonnes-m/cm
Shell thickness	0.000	mm

Intact State

SUMMER-CARS: Intact State



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLRad (m)	Freeboard (m)	Crowding (m)	Turning (m)	Wind (m)
0.00	-0.0031	28.6135	-0.314	5.083	24.92[0]	0.0003	0.6920	0.4469
5.00	2.4949	28.7197	-0.129	5.030	23.45[1]	0.0003	0.6920	0.4469
10.00	4.9361	27.8936	0.321	4.851	21.90[1]	0.0003	0.6920	0.4469
15.00	7.2312	24.7271	0.777	4.508	20.30[1]	0.0003	0.6920	0.4469
20.00	8.6997	2.8998	1.314	3.862	18.82[1]	0.0003	0.6920	0.4469
25.00	7.9310	-10.4864	1.401	2.652	17.73[1]	0.0003	0.6920	0.4469
30.00	6.9917	-11.0015	1.367	1.385	16.54[1]	0.0003	0.6920	0.4469
35.00	6.0146	-11.3462	1.310	0.099	15.24[1]	0.0003	0.6920	0.4469
40.00	5.0149	-11.5068	1.237	-1.195	13.83[1]	0.0003	0.6920	0.4469
45.00	4.0097	-11.4596	1.148	-2.488	12.32[1]	0.0003	0.6920	0.4469
50.00	3.0180	-11.1767	1.046	-3.772	10.72[1]	0.0003	0.6920	0.4469
55.00	2.0633	-10.5798	0.932	-5.044	9.06[1]	0.0003	0.6920	0.4469
60.00	1.1778	-9.5541	0.814	-6.300	7.36[1]	0.0003	0.6920	0.4469
65.00	0.4081	-7.9009	0.704	-7.538	5.62[1]	0.0003	0.6920	0.4469
70.00	-0.1564	-4.2814	0.572	-8.758	3.89[1]	0.0003	0.6920	0.4469

IMO Wind heeling

Property	Value	Units
Length WL	94.472	metres

Property	Value	Units
Profile area above WL	2033.295	sq.metres
Area to leeward (Area b)	4.42374	m-radians
Area to windward (Area a)	0.00354	m-radians
GZc	0.447	metres
Gust angle	0.901	degrees
Rollback angle	26.046	degrees
Steady state angle	0.603	degrees
Max. angle to leeward	50.000	degrees
B/d'	6.335	
X1	0.800	
Cb	0.302	
Ar	0.000	
K	1.000	
Og	7.253	metres
r	1.586	
T	5.756	seconds

IMO Turning

Property	Value	Units
Area A	4.46879	m-radians
Total Area A+B	5.22171	m-radians
Steady state angle	1.392	degrees
Max. angle	63.042	degrees

IMO Passenger crowding

Property	Value	Units
Area A	5.25121	m-radians
Total Area A+B	5.25160	m-radians
Steady state angle	0.007	degrees
Max. angle	68.276	degrees

Intact State

IMO 749 Intact stability Criteria Passenger

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to 30 degrees > 0.055	3.061	0.055
2	Area under GZ curve from 30 to 40 deg. or downflood > 0.03	1.049	0.030
3	Area under GZ curve up to 40 deg. or downflood > 0.09	4.110	0.090
4	Initial GM to be at least 0.15 metres	28.613	0.150

#	Criterion	Actual Value	Critical Value	
5	GZ to be at least 0.20m at an angle > 30 degrees	6.992	0.200	
6	Max GZ to be at an angle > 30 degrees	20.350	30.000	F
7	Angle of heel for passenger crowding < 10 degrees	0.007	10.000	
8	Angle of heel for turning < 10 degrees	1.392	10.000	
9	IMO Weather Criterion (Maximum Initial Angle Of Heel)	0.603	16.000	
10	IMO Weather Criterion (Areas)	Indeterm.	1.000	

**** Condition does not comply ****

Note

Term	Meaning
F	The criterion is not satisfied.
Indeterm.	The value cannot be determined, although the ship passes the test. The reason may be that the value has some very large value. Another reason may be that no profile has been defined, and thus the wind moment cannot be calculated.

Intact State

Immersion Particulars

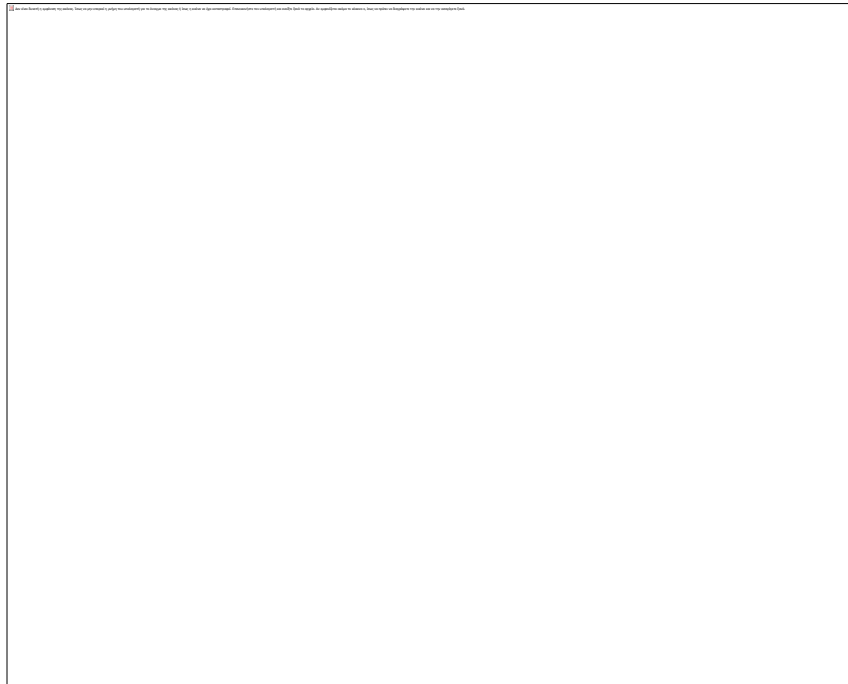
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	24.919	Not immersed
1	45.860	-16.100	30.000	24.915	Not immersed

Intact State

Longitudinal Strength



Shearing Force and Bending Moments

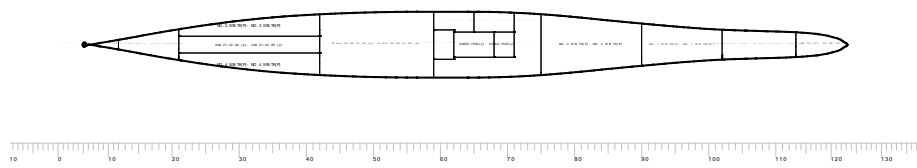
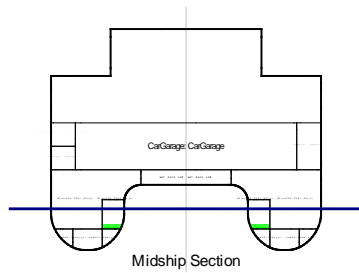
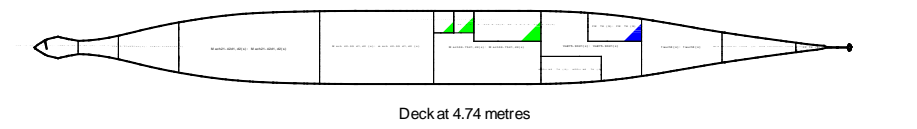
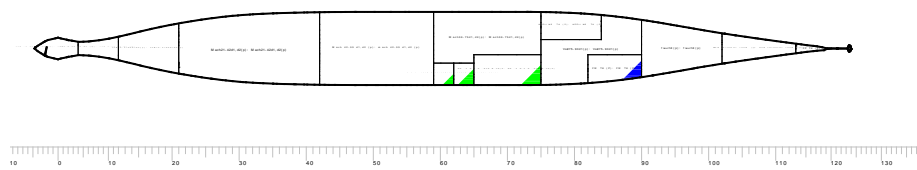
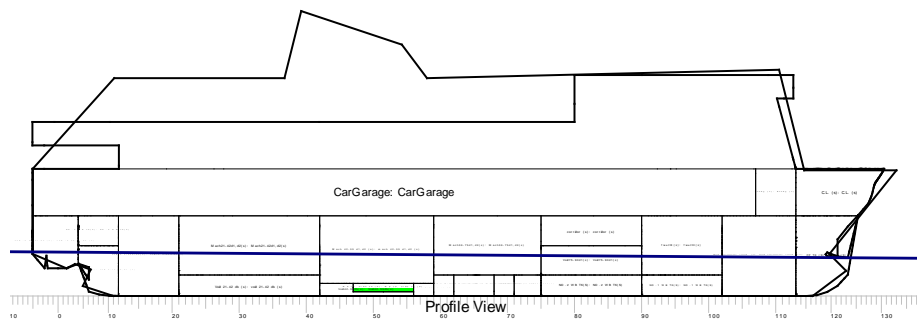
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
0.00	#0	-128.7	---	-125.5	---
0.33	--	0.0	---	-146.3	---
17.60	#25	4190.0	---	47741.2	---
41.28	--	0.0	---	106288.3	---
63.92	--	-3327.5	---	63798.7	---
70.46	--	-3137.3	---	41664.0	---
90.33	--	0.0	---	-261.1	---
91.75	--	211.1	---	-132.8	---
94.69	--	0.0	---	0.0	---
94.72	--	0.0	---	0.0	---
94.81	--	0.0	---	0.0	---
94.90	--	0.0	---	0.0	---
94.93	--	0.0	---	0.0	---
95.01	--	0.0	---	0.0	---
95.05	--	0.0	---	0.0	---
95.07	--	0.0	---	0.0	---
95.12	--	0.0	---	0.0	---
95.18	--	0.0	---	0.0	---
95.22	--	0.0	---	0.0	---
95.25	--	0.0	---	0.0	---

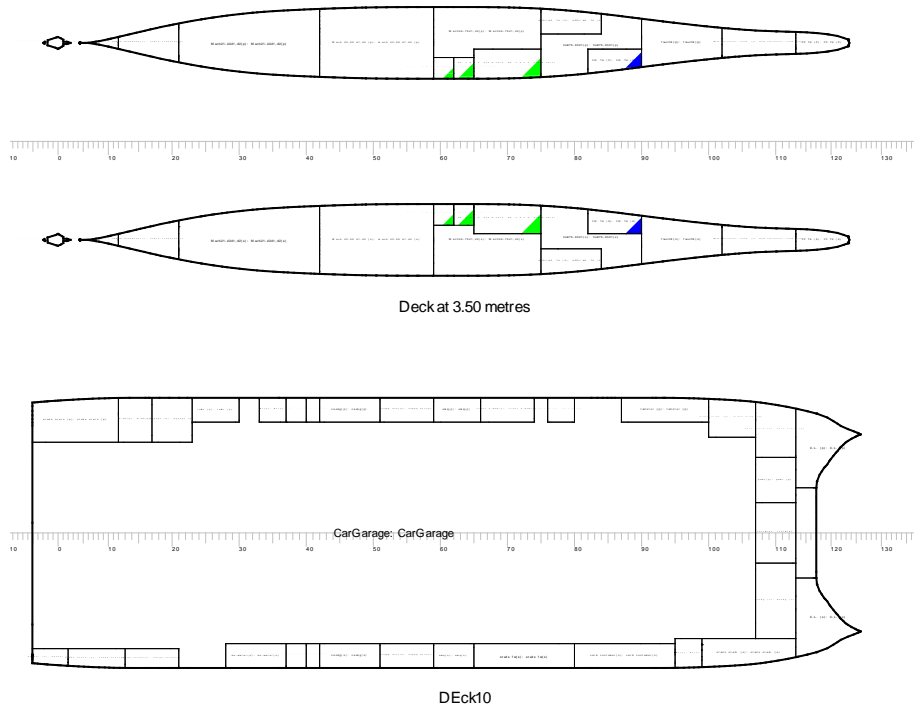
Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
95.30	--	0.0	---	0.0	---
95.38	--	0.0	---	0.0	---
95.42	--	0.0	---	0.0	---
96.01	--	0.0	---	0.0	---
96.02	--	0.0	---	0.0	---
96.03	--	0.0	---	0.0	---
96.49	--	0.0	---	0.0	---
96.64	--	0.0	---	0.0	---
97.36	--	0.0	---	0.0	---
97.47	--	0.0	---	0.0	---
97.71	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.97	--	0.0	---	0.0	---
99.03	--	0.0	---	0.0	---
99.12	--	0.0	---	0.0	---
99.32	--	0.0	---	0.0	---
99.36	--	0.0	---	0.0	---
99.53	--	0.0	---	0.0	---
99.61	--	0.0	---	0.0	---
99.71	--	0.0	---	0.0	---
99.82	--	0.0	---	0.0	---
99.85	--	0.0	---	0.0	---
99.88	--	0.0	---	0.0	---
99.99	--	0.0	---	0.0	---
100.01	--	0.0	---	0.0	---
100.02	--	0.0	---	0.0	---
Maximum BM					
40.37				106322.5	---
Maximum SF					
17.60		4190.0	---		

Damage Case Summary Table

Case	Displ. (t)	Draft AP (m)	Draft FP (m)	LCG (m)	TCG (m)	VCG (m)	Range (degs)	Max GZ (m)	Heel (degs)	Area (m-rads)	Open-ings	Pass?

Intact State





Key

Key Name	Density (t/m3)
FW	1.0000
FO	0.9800
DO	0.9000
LO	0.9000

Intact State

Intact State

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
<i>FO</i>										
H.F.O.SERV.TK(P): H.F.O.SERV.TK(P)	62-65	FO	30.0	0.980	6.2	48.40	-8.80	3.07	3.2	
H.F.O.SERV.TK(S): H.F.O.SERV.TK(S)	62-65	FO	30.0	0.980	6.2	48.40	8.80	3.07	3.2	
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	FO	15.0	0.980	3.1	46.00	-8.84	2.79	2.7	
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	FO	15.0	0.980	3.1	46.00	8.84	2.79	2.7	
NO.2 H.F.O.STOR.TK(P):	65-75	FO	10.0	0.980	9.4	53.54	-9.41	2.70	22.3	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
NO.2 H.F.O.STOR.TK(P)										
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	FO	10.0	0.980	9.4	53.54	9.41	2.70	22.3	
Total FO					37.4	50.60	0.00	2.84	56.4	
<i>DO</i>										
DO SERV TK(P): DO SERV TK(P)	21-25	DO	2.5	0.900	1.0	16.04	-9.20	6.07	4.3	
DO SERV TK(S): DO SERV TK(S)	34-39	DO	2.5	0.900	0.9	26.81	8.13	6.08	1.1	
Total DO					1.9	20.97	-1.26	6.08	5.4	
<i>LO</i>										
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	LO	45.0	0.900	4.3	38.80	- 11.74	0.72	1.8	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	LO	45.0	0.900	4.3	38.80	11.74	0.72	1.8	
Total LO					8.6	38.80	0.00	0.72	3.6	
<i>FW</i>										
FW TK (P): FW TK (P)	82-90	FW	11.5	1.000	7.2	66.24	-9.89	2.76	6.9	
FW TK (S): FW TK (S)	82-90	FW	11.5	1.000	7.2	66.24	9.89	2.76	6.9	
Total FW					14.4	66.24	0.00	2.76	13.8	
<i>PROVISIONS DEP</i>										
PROVISIONS					30.4	41.72	0.00	20.00	0.0	
Total PROVISIONS DEP					30.4	41.72	0.00	20.00	0.0	
<i>PASSENGERS</i>										
PASSENGERS					211.4	39.45	0.00	20.45	0.0	
Total PASSENGERS					211.4	39.45	0.00	20.45	0.0	
<i>LIQUIDS</i>										
LIQUIDS					12.5	33.89	0.00	3.27	0.0	
Total LIQUIDS					12.5	33.89	0.00	3.27	0.0	
<i>CREW</i>										
CREW					7.9	66.95	0.00	17.97	0.0	
Total CREW					7.9	66.95	0.00	17.97	0.0	
<i>ALL CARS (WITH 7 TRUCKS)</i>										
ALL CARS (WITH 7 TRUCKS)					656.8	41.62	0.00	12.89	0.0	
Total ALL CARS (WITH					656.8	41.62	0.00	12.89	0.0	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
7 TRUCKS)										
Lightweight					3478.7	47.15	0.00	12.34	0.0	
Deadweight					981.2	41.90	-0.00	14.01	79.2	
Total Displacement					4459.9	45.99	-0.00	12.71	79.2	
Buoyancy					4460.8	45.92	0.00	2.86	176771.2	
Total Buoyancy					4460.8	45.92	0.00	2.86	176771.2	

Intact State

Drafts at equilibrium angle

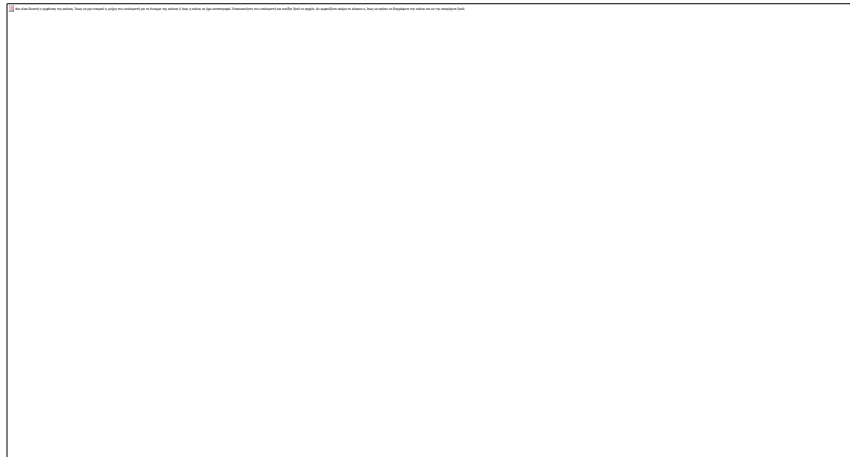
Draft at LCF	4.928	metres
Draft aft at marks	5.237	metres
Draft fwd at marks	4.578	metres
Draft at AP	5.237	metres
Draft at FP	4.578	metres
Mean draft at midships	4.908	metres

Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel	No heel	
Trim by the stern	0.659	metres
KG	12.707	metres
FSC	0.018	metres
KGf	12.725	metres
GMt	29.772	metres
BMt	39.628	metres
BMI	131.328	metres
Waterplane area	1199.88	sq.metres
LCG	45.995	metres
LCB	45.924	metres
TCB	0.000	metres
LCF	43.009	metres
TCF	0.000	metres
TPC	12.383	tonnes/cm
MTC	63.871	tonnes-m/cm
Shell thickness	0.000	mm

Intact State

SUMMER-CARS ARRIVAL: Intact State



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)	Crowding (m)	Turning (m)	Wind (m)
0.00	-0.0005	29.7715	-0.659	4.908	25.09[0]	0.0003	0.7256	0.4710
5.00	2.5860	29.6348	-0.431	4.860	23.62[1]	0.0003	0.7256	0.4710
10.00	5.0826	28.4397	0.067	4.683	22.07[1]	0.0003	0.7256	0.4710
15.00	7.3905	24.4908	0.562	4.337	20.47[1]	0.0003	0.7256	0.4710
20.00	8.6334	-5.6372	1.105	3.642	19.04[1]	0.0003	0.7256	0.4710
25.00	7.7128	-10.9903	1.104	2.412	17.97[1]	0.0003	0.7256	0.4710
30.00	6.7313	-11.4645	1.071	1.151	16.78[1]	0.0003	0.7256	0.4710
35.00	5.7157	-11.7726	1.025	-0.125	15.46[1]	0.0003	0.7256	0.4710
40.00	4.6807	-11.8979	0.968	-1.407	14.04[1]	0.0003	0.7256	0.4710
45.00	3.6433	-11.8238	0.900	-2.686	12.51[1]	0.0003	0.7256	0.4710
50.00	2.6219	-11.5143	0.820	-3.956	10.91[1]	0.0003	0.7256	0.4710
55.00	1.6400	-10.8887	0.732	-5.213	9.23[1]	0.0003	0.7256	0.4710
60.00	0.7312	-9.8004	0.638	-6.453	7.51[1]	0.0003	0.7256	0.4710
65.00	-0.0559	-8.0785	0.551	-7.675	5.76[1]	0.0003	0.7256	0.4710
70.00	-0.6358	-4.4609	0.457	-8.877	4.01[1]	0.0003	0.7256	0.4710

IMO Wind heeling

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2049.534	sq.metres
Area to leeward (Area b)	4.28650	m-radians
Area to windward (Area a)	0.00374	m-radians
GZc	0.471	metres
Gust angle	0.909	degrees
Rollback angle	26.851	degrees

Property	Value	Units
Steady state angle	0.606	degrees
Max. angle to leeward	50.000	degrees
B/d'	6.561	
X1	0.800	
Cb	0.299	
Ar	0.000	
K	1.000	
Og	7.817	metres
r	1.686	
T	5.704	seconds

IMO Turning

Property	Value	Units
Area A	4.23117	m-radians
Total Area A+B	4.98258	m-radians
Steady state angle	1.400	degrees
Max. angle	60.032	degrees

IMO Passenger crowding

Property	Value	Units
Area A	5.01035	m-radians
Total Area A+B	5.01072	m-radians
Steady state angle	0.000	degrees
Max. angle	64.603	degrees

Intact State

IMO 749 Intact stability Criteria Passenger

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to 30 degrees > 0.055	3.060	0.055
2	Area under GZ curve from 30 to 40 deg. or downflood > 0.03	0.997	0.030
3	Area under GZ curve up to 40 deg. or downflood > 0.09	4.057	0.090
4	Initial GM to be at least 0.15 metres	29.772	0.150
5	GZ to be at least 0.20m at an angle > 30 degrees	6.731	0.200
6	Max GZ to be at an angle > 30 degrees	19.498	30.000 F
7	Angle of heel for passenger crowding < 10 degrees	0.000	10.000
8	Angle of heel for turning < 10 degrees	1.400	10.000
9	IMO Weather Criterion (Maximum Initial Angle Of Heel)	0.606	16.000
10	IMO Weather Criterion (Areas)	Indeterm.	1.000

**** Condition does not comply ****

Note

Term	Meaning
F	The criterion is not satisfied.
Indeterm.	The value cannot be determined, although the ship passes the test. The reason may be that the value has some very large value. Another reason may be that no profile has been defined, and thus the wind moment cannot be calculated.

Intact State

Immersion Particulars

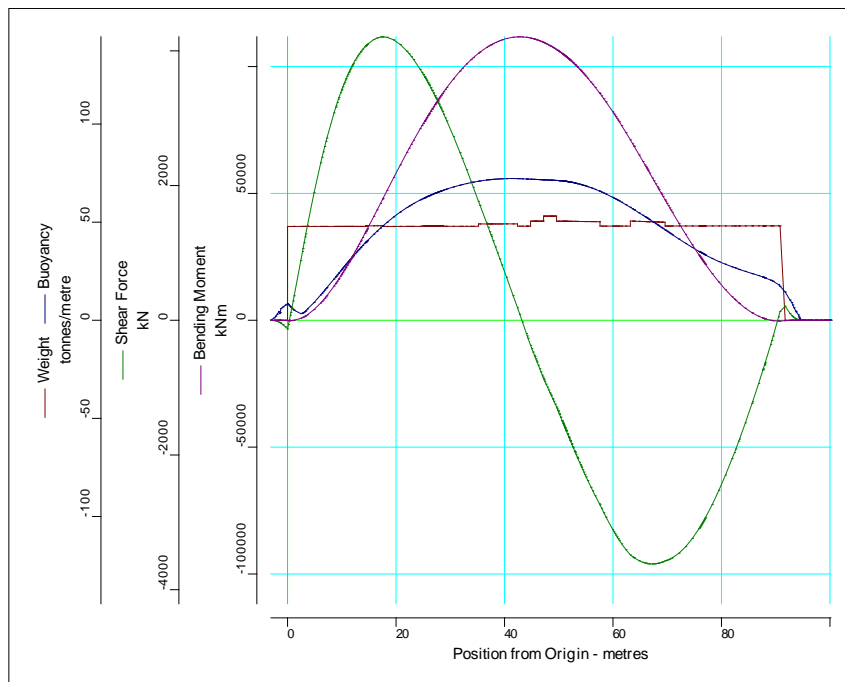
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	25.091	Not immersed
1	45.860	-16.100	30.000	25.091	Not immersed

Intact State

Longitudinal Strength



Shearing Force and Bending Moments

Distance	Shearing % of Max	Bending % of Max

from Origin (m)		Force (kN)	allowed	Moment (kNm)	allowed
0.00	#0	-128.9	---	-126.1	---
0.33	--	0.0	---	-146.9	---
17.60	#25	4208.3	---	48024.8	---
43.20	--	0.0	---	111687.0	---
67.28	--	-3618.3	---	56062.5	---
90.35	--	0.0	---	-278.1	---
91.75	--	207.9	---	-139.9	---
94.55	--	0.0	---	0.0	---
94.56	--	0.0	---	0.0	---
94.61	--	0.0	---	0.0	---
94.69	--	0.0	---	0.0	---
94.72	--	0.0	---	0.0	---
94.81	--	0.0	---	0.0	---
94.90	--	0.0	---	0.0	---
94.93	--	0.0	---	0.0	---
95.01	--	0.0	---	0.0	---
95.05	--	0.0	---	0.0	---
95.07	--	0.0	---	0.0	---
95.12	--	0.0	---	0.0	---
95.18	--	0.0	---	0.0	---
95.22	--	0.0	---	0.0	---
95.25	--	0.0	---	0.0	---
95.30	--	0.0	---	0.0	---
95.38	--	0.0	---	0.0	---
95.42	--	0.0	---	0.0	---
96.01	--	0.0	---	0.0	---
96.02	--	0.0	---	0.0	---
96.03	--	0.0	---	0.0	---
96.49	--	0.0	---	0.0	---
96.64	--	0.0	---	0.0	---
97.36	--	0.0	---	0.0	---
97.47	--	0.0	---	0.0	---
97.71	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.30	--	0.0	---	0.0	---
98.97	--	0.0	---	0.0	---
99.03	--	0.0	---	0.0	---
99.12	--	0.0	---	0.0	---

Distance from Origin (m)		Shearing Force (kN)	% of Max allowed	Bending Moment (kNm)	% of Max allowed
99.32	--	0.0	---	0.0	---
99.36	--	0.0	---	0.0	---
99.53	--	0.0	---	0.0	---
99.61	--	0.0	---	0.0	---
99.71	--	0.0	---	0.0	---
99.82	--	0.0	---	0.0	---
99.85	--	0.0	---	0.0	---
99.88	--	0.0	---	0.0	---
99.99	--	0.0	---	0.0	---
100.01	--	0.0	---	0.0	---
100.02	--	0.0	---	0.0	---
<i>Maximum BM</i>					
42.82				111711.2	---
<i>Maximum SF</i>					
17.60		4208.3	---		

Damage Case Summary Table

Case	Displ. (t)	Draft AP (m)	Draft FP (m)	LCG (m)	TCG (m)	VCG (m)	Range (degs)	Max GZ (m)	Heel (degs)	Area (m-rads)	Open-ings	Pass?
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HSCC (RESULTS ONLY)

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1997.019	sq.metres
Area to leeward (Area b)	0.88918	m-radians
Area to windward (Area a)	0.01679	m-radians
GZc	0.937	metres
Gust angle	2.049	degrees
Rollback angle	90.000	degrees
Steady state angle	2.049	degrees
Max. angle to leeward	63.504	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.82464	m-radians
Area to windward (Area a)	0.00149	m-radians
GZc	0.277	metres
Gust angle	0.611	degrees
Rollback angle	90.000	degrees
Steady state angle	0.611	degrees
Max. angle to leeward	30.000	degrees

Intact State

High Speed Craft (HSC) Code intact

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to $\theta > 0.055 \cdot 30 / \theta$	1.762	0.097
2	Maximum GZ to occur above 10 deg. heel	21.311	10.000
3	Angle of heel due to beam winds ≤ 10 degrees	0.611	10.000
4	Area A2 ≥ 0.028 m-rad	0.889	0.028

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2015.446	sq.metres
Area to leeward (Area b)	0.91266	m-radians
Area to windward (Area a)	0.01770	m-radians
GZc	0.980	metres
Gust angle	2.068	degrees
Rollback angle	90.000	degrees
Steady state angle	2.068	degrees
Max. angle to leeward	60.718	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.83255	m-radians
Area to windward (Area a)	0.00156	m-radians
GZc	0.290	metres
Gust angle	0.613	degrees
Rollback angle	90.000	degrees
Steady state angle	0.613	degrees
Max. angle to leeward	30.000	degrees

Intact State

High Speed Craft (HSC) Code intact

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to $\theta > 0.055 \cdot 30 / \theta$	1.728	0.097
2	Maximum GZ to occur above 10 deg. heel	20.817	10.000
3	Angle of heel due to beam winds ≤ 10 degrees	0.613	10.000
4	Area A2 ≥ 0.028 m-rad	0.913	0.028

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2084.263	sq.metres
Area to leeward (Area b)	1.06834	m-radians
Area to windward (Area a)	0.01714	m-radians
GZc	1.057	metres
Gust angle	1.854	degrees
Rollback angle	90.000	degrees
Steady state angle	1.854	degrees
Max. angle to leeward	59.163	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	3.01833	m-radians
Area to windward (Area a)	0.00196	m-radians
GZc	0.356	metres
Gust angle	0.626	degrees
Rollback angle	90.000	degrees
Steady state angle	0.626	degrees
Max. angle to leeward	30.000	degrees

Intact State

High Speed Craft (HSC) Code intact

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to $\theta > 0.055 \cdot 30 / \theta$	1.637	0.097
2	Maximum GZ to occur above 10 deg. heel	18.648	10.000
3	Angle of heel due to beam winds ≤ 10 degrees	0.626	10.000
4	Area A2 ≥ 0.028 m-rad	1.068	0.028

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2102.912	sq.metres
Area to leeward (Area b)	1.10352	m-radians
Area to windward (Area a)	0.01802	m-radians
GZc	1.117	metres
Gust angle	1.852	degrees
Rollback angle	90.000	degrees
Steady state angle	1.852	degrees
Max. angle to leeward	56.255	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	3.01411	m-radians
Area to windward (Area a)	0.00205	m-radians
GZc	0.377	metres
Gust angle	0.623	degrees
Rollback angle	90.000	degrees
Steady state angle	0.623	degrees
Max. angle to leeward	30.000	degrees

Intact State

High Speed Craft (HSC) Code intact

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to $\theta > 0.055 \cdot 30 / \theta$	1.543	0.097
2	Maximum GZ to occur above 10 deg. heel	17.692	10.000
3	Angle of heel due to beam winds ≤ 10 degrees	0.623	10.000
4	Area A2 ≥ 0.028 m-rad	1.104	0.028

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2061.982	sq.metres
Area to leeward (Area b)	1.02213	m-radians
Area to windward (Area a)	0.01666	m-radians
GZc	1.010	metres
Gust angle	1.884	degrees
Rollback angle	90.000	degrees
Steady state angle	1.884	degrees
Max. angle to leeward	61.249	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.99175	m-radians
Area to windward (Area a)	0.00183	m-radians
GZc	0.332	metres
Gust angle	0.624	degrees
Rollback angle	90.000	degrees
Steady state angle	0.624	degrees
Max. angle to leeward	30.000	degrees

Intact State

High Speed Craft (HSC) Code intact

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to $\theta > 0.055 \cdot 30 / \theta$	1.684	0.097
2	Maximum GZ to occur above 10 deg. heel	19.392	10.000
3	Angle of heel due to beam winds ≤ 10 degrees	0.624	10.000
4	Area A2 ≥ 0.028 m-rad	1.022	0.028

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2080.626	sq.metres
Area to leeward (Area b)	1.05407	m-radians
Area to windward (Area a)	0.01748	m-radians
GZc	1.065	metres
Gust angle	1.884	degrees
Rollback angle	90.000	degrees
Steady state angle	1.884	degrees
Max. angle to leeward	58.312	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.98897	m-radians
Area to windward (Area a)	0.00190	m-radians
GZc	0.351	metres
Gust angle	0.620	degrees
Rollback angle	90.000	degrees
Steady state angle	0.620	degrees
Max. angle to leeward	30.000	degrees

Intact State

High Speed Craft (HSC) Code intact

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to $\theta > 0.055 \cdot 30 / \theta$	1.629	0.097
2	Maximum GZ to occur above 10 deg. heel	18.718	10.000
3	Angle of heel due to beam winds ≤ 10 degrees	0.620	10.000
4	Area A2 ≥ 0.028 m-rad	1.054	0.028

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.421	sq.metres
Area to leeward (Area b)	1.13123	m-radians
Area to windward (Area a)	0.01578	m-radians
GZc	1.050	metres
Gust angle	1.719	degrees
Rollback angle	90.000	degrees
Steady state angle	1.719	degrees
Max. angle to leeward	61.191	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	3.12708	m-radians
Area to windward (Area a)	0.00204	m-radians
GZc	0.376	metres
Gust angle	0.617	degrees
Rollback angle	90.000	degrees
Steady state angle	0.617	degrees
Max. angle to leeward	30.000	degrees

Intact State

High Speed Craft (HSC) Code intact

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to $\theta > 0.055 \cdot 30 / \theta$	1.619	0.097
2	Maximum GZ to occur above 10 deg. heel	17.975	10.000
3	Angle of heel due to beam winds ≤ 10 degrees	0.617	10.000
4	Area A2 ≥ 0.028 m-rad	1.131	0.028

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2120.913	sq.metres
Area to leeward (Area b)	1.16643	m-radians
Area to windward (Area a)	0.01702	m-radians
GZc	1.121	metres
Gust angle	1.743	degrees
Rollback angle	90.000	degrees
Steady state angle	1.743	degrees
Max. angle to leeward	57.579	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	3.11191	m-radians
Area to windward (Area a)	0.00218	m-radians
GZc	0.402	metres
Gust angle	0.623	degrees
Rollback angle	90.000	degrees
Steady state angle	0.623	degrees
Max. angle to leeward	30.000	degrees

Intact State

High Speed Craft (HSC) Code intact

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to $\theta > 0.055 \cdot 30 / \theta$	1.519	0.097
2	Maximum GZ to occur above 10 deg. heel	17.010	10.000
3	Angle of heel due to beam winds ≤ 10 degrees	0.623	10.000
4	Area A2 ≥ 0.028 m-rad	1.166	0.028

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2033.732	sq.metres
Area to leeward (Area b)	0.95547	m-radians
Area to windward (Area a)	0.01716	m-radians
GZc	0.988	metres
Gust angle	1.985	degrees
Rollback angle	90.000	degrees
Steady state angle	1.985	degrees
Max. angle to leeward	61.157	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.90253	m-radians
Area to windward (Area a)	0.00167	m-radians
GZc	0.306	metres
Gust angle	0.618	degrees
Rollback angle	90.000	degrees
Steady state angle	0.618	degrees
Max. angle to leeward	30.000	degrees

Intact State

High Speed Craft (HSC) Code intact

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to $\theta > 0.055 \cdot 30 / \theta$	1.729	0.097
2	Maximum GZ to occur above 10 deg. heel	20.350	10.000
3	Angle of heel due to beam winds ≤ 10 degrees	0.618	10.000
4	Area A2 ≥ 0.028 m-rad	0.955	0.028

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2050.366	sq.metres
Area to leeward (Area b)	0.97806	m-radians
Area to windward (Area a)	0.01813	m-radians
GZc	1.037	metres
Gust angle	2.003	degrees
Rollback angle	90.000	degrees
Steady state angle	2.003	degrees
Max. angle to leeward	58.253	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.89486	m-radians
Area to windward (Area a)	0.00172	m-radians
GZc	0.320	metres
Gust angle	0.617	degrees
Rollback angle	90.000	degrees
Steady state angle	0.617	degrees
Max. angle to leeward	30.000	degrees

Intact State

High Speed Craft (HSC) Code intact

#	Criterion	Actual Value	Critical Value
1	Area under GZ curve up to $\theta > 0.055 \cdot 30 / \theta$	1.637	0.097
2	Maximum GZ to occur above 10 deg. heel	19.498	10.000
3	Angle of heel due to beam winds ≤ 10 degrees	0.617	10.000
4	Area A2 ≥ 0.028 m-rad	0.978	0.028

Condition complies with the regulations

5. DAMAGE STABILITY

SOLAS 90

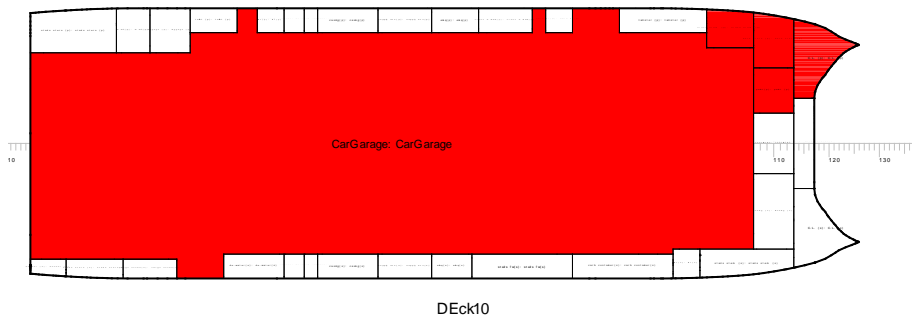
14. For the purpose of stability, this compartment is to be treated as a single, full, undamaged compartment. The compartment is to be treated as a single, full, undamaged compartment. The compartment is to be treated as a single, full, undamaged compartment. The compartment is to be treated as a single, full, undamaged compartment.

14. For the purpose of stability, this compartment is to be treated as a single, full, undamaged compartment. The compartment is to be treated as a single, full, undamaged compartment. The compartment is to be treated as a single, full, undamaged compartment. The compartment is to be treated as a single, full, undamaged compartment.

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Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

1-2 (P)

1-2 (P)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					5311.8	47.57	-0.51	3.26	182205.9	
<i>Damaged</i>		<i>% perm</i>								
Bow thruster room (p): bow thruster room (p)	102-113	85.0	35.8	1.032	-124.5	83.24	-11.74	3.20	-3055.4	
C.L. (p): C.L. (p)	113-133	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
FP TK (P): FP TK (P)	113-125	95.0	48.4	1.032	-47.8	90.37	-11.74	2.89	-612.5	
deck store (p): deck store (p)	107-113	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
fire lkr hoistable(p): fire lkr hoistable(p)	107-113	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
paint(p): paint (p)	107-113	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs hoistable ste:	100-	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
stairs hoistable stem(p)	113									
stairs stem (p): stairs stem (p)	100-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					-172.3	85.22	-11.74	3.11	-3668.0	
Total Buoyancy					5139.4	46.30	-0.14	3.26	178537.9	

Drafts at equilibrium angle

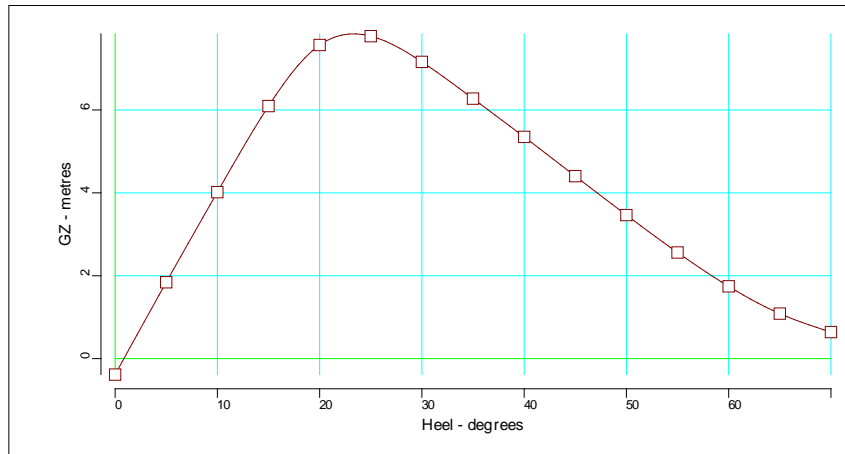
Draft at LCF	5.603 metres
Draft aft at marks	5.103 metres
Draft fwd at marks	6.170 metres
Draft at AP	5.103 metres
Draft at FP	6.170 metres
Mean draft at midships	5.637 metres

Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel to port	0.86 degrees
Trim by the bow	1.067 metres
KG	12.236 metres
FSC	0.023 metres
KGf	12.259 metres
GMt	25.621 metres
BMt	34.739 metres
BMI	110.640 metres
Waterplane area	1209.32 sq.metres
LCG	46.198 metres
LCB	46.303 metres
TCB	-0.138 metres
LCF	43.009 metres
TCF	-0.025 metres
TPC	12.480 tonnes/cm
MTC	61.996 tonnes-m/cm
Shell thickness	0.000 mm

1-2 (P)

FULL LOAD DEPARTURE: 1-2 (P)



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-0.3852	25.7580	1.032	5.633	24.36[0]
5.00	1.8430	25.5433	1.323	5.598	22.88[1]
10.00	4.0184	25.2011	1.822	5.432	21.31[1]
15.00	6.0945	23.0727	2.482	5.138	19.66[1]
20.00	7.5672	13.6155	3.618	4.683	17.98[1]
25.00	7.7814	-0.5095	5.227	3.915	16.44[1]
30.00	7.1613	-9.8755	6.088	2.832	15.06[1]
35.00	6.2742	-10.3823	6.208	1.580	13.72[1]
40.00	5.3504	-10.6759	6.085	0.268	12.34[1]
45.00	4.4047	-10.6563	5.772	-1.087	10.90[1]
50.00	3.4644	-10.3074	5.348	-2.461	9.40[1]
55.00	2.5609	-9.5332	4.850	-3.835	7.85[1]
60.00	1.7444	-7.8143	4.276	-5.207	6.26[1]
65.00	1.0869	-5.4175	3.608	-6.586	4.67[1]
70.00	0.6414	-2.4568	2.923	-7.959	3.09[1]

1-2 (P)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	69.141	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	2.316	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.829	0.100
4	GM at least 0.05m in equilibrium position after flooding	25.758	0.050

#	Criterion	Actual Value	Critical Value
5	Range of positive GZ to be > 7 degrees	69.141	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.829	0.050

Condition complies with the regulations

1-2 (P)

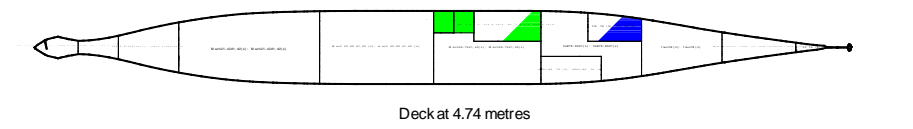
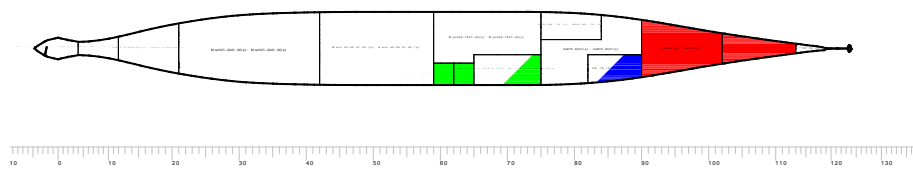
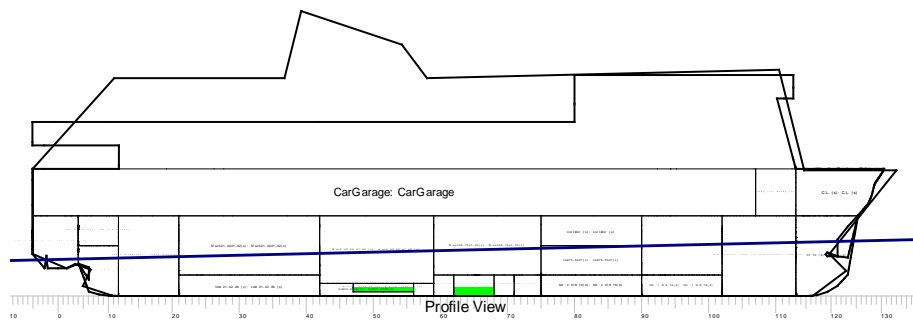
Immersion Particulars

State of Openings = X-ray: Normal condition

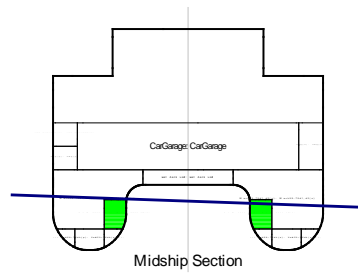
Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	24.609	Not immersed
1	45.860	-16.100	30.000	24.126	Not immersed

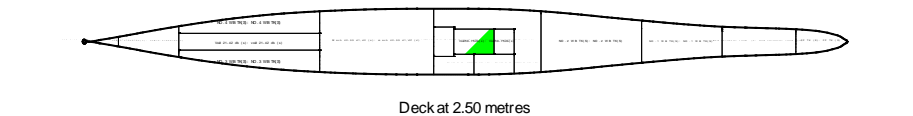
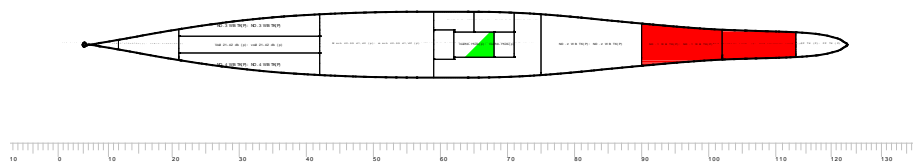
2-3 (P)



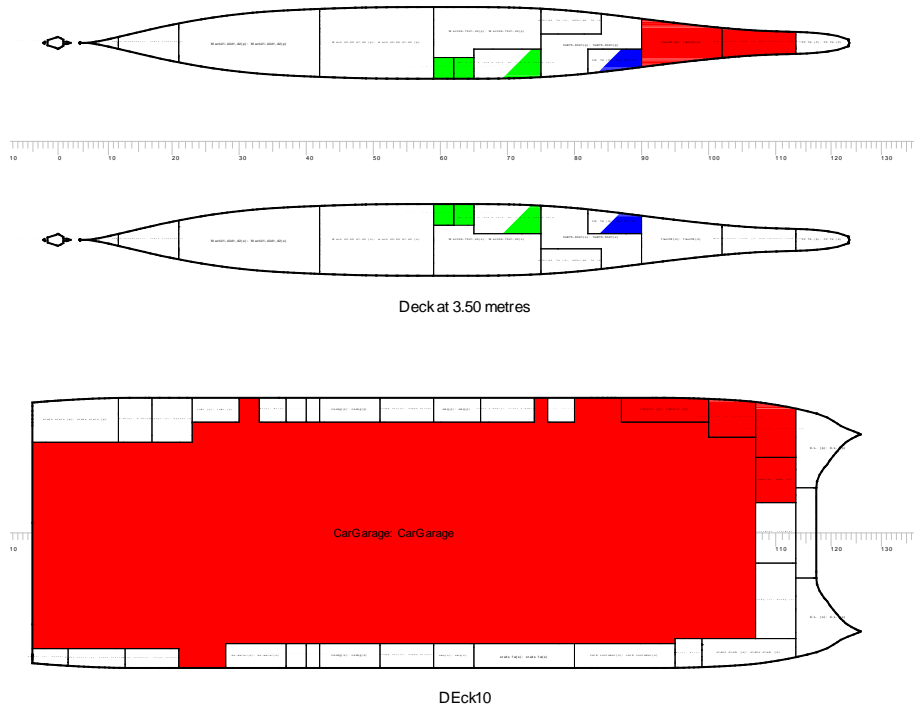
Deck at 4.74 metres



Midship Section



Deck at 2.50 metres



Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

2-3 (P)

2-3 (P)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					5553.3	48.71	-1.17	3.40	185299.5	
<i>Damaged</i>		<i>% perm</i>								
Bow thruster room (p): bow thruster room (p)	102-113	85.0	42.1	1.032	-146.5	83.22	-11.75	3.72	-4465.6	
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
NO.1 WB TK(P): NO.1 WB TK(P)	90-102	95.0	95.0	1.032	-73.3	74.17	-11.74	1.44	0.0	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
deck store (p): deck store (p)	107-113	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
fire lkr hoistable(p): fire lkr hoistable(p)	107-113	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
fw+chil (p): fw+chil (p)	90-102	85.0	40.5	1.032	-194.1	74.01	-11.78	4.88	-8738.4	
paint(p): paint (p)	107-113	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs hoistable ste: stairs hoistable stem(p)	100-113	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs stem (p): stairs stem (p)	100-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
tail stor (p): tail stor (p)	87-100	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					-413.9	77.30	-11.76	3.86	-13204.0	
Total Buoyancy					5139.5	46.40	-0.32	3.36	172095.5	

Drafts at equilibrium angle

Draft at LCF	5.764	metres
Draft aft at marks	4.774	metres
Draft fwd at marks	6.896	metres
Draft at AP	4.774	metres
Draft at FP	6.896	metres
Mean draft at midships	5.835	metres

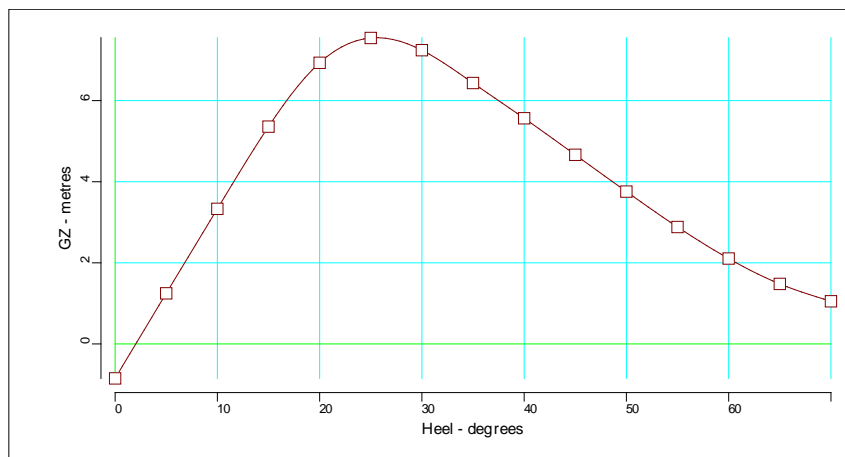
Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel to port	2.02	degrees
Trim by the bow	2.121	metres
KG	12.236	metres
FSC	0.023	metres
KGf	12.259	metres
GMt	23.811	metres
BMt	33.485	metres
BMI	103.828	metres
Waterplane area	1167.95	sq.metres

Density of water	1.0320	tonnes/cu.m
LCG	46.198	metres
LCB	46.404	metres
TCB	-0.318	metres
LCF	42.919	metres
TCF	0.131	metres
TPC	12.053	tonnes/cm
MTC	58.179	tonnes-m/cm
Shell thickness	0.000	mm

2-3 (P)

FULL LOAD DEPARTURE: 2-3 (P)



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-0.8507	24.5920	1.900	5.807	24.19[0]
5.00	1.2478	24.5745	2.494	5.824	22.65[1]
10.00	3.3319	24.5179	3.143	5.697	21.04[1]
15.00	5.3597	22.6105	3.699	5.422	19.37[1]
20.00	6.9331	15.4728	4.586	4.981	17.67[1]
25.00	7.5454	4.0152	5.785	4.244	16.10[1]
30.00	7.2441	-7.3749	6.588	3.193	14.69[1]
35.00	6.4341	-9.7186	6.701	1.939	13.36[1]
40.00	5.5653	-10.0858	6.600	0.617	11.98[1]
45.00	4.6639	-10.1646	6.308	-0.755	10.56[1]
50.00	3.7571	-9.8347	5.878	-2.153	9.09[1]
55.00	2.8835	-8.9197	5.357	-3.558	7.57[1]
60.00	2.1057	-7.0397	4.728	-4.966	6.02[1]

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
65.00	1.4805	-4.8383	4.029	-6.375	4.46[1]
70.00	1.0522	-2.0838	3.316	-7.775	2.91[1]

2-3 (P)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	67.979	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	2.057	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.579	0.100
4	GM at least 0.05m in equilibrium position after flooding	24.592	0.050
5	Range of positive GZ to be > 7 degrees	67.979	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.579	0.050

Condition complies with the regulations

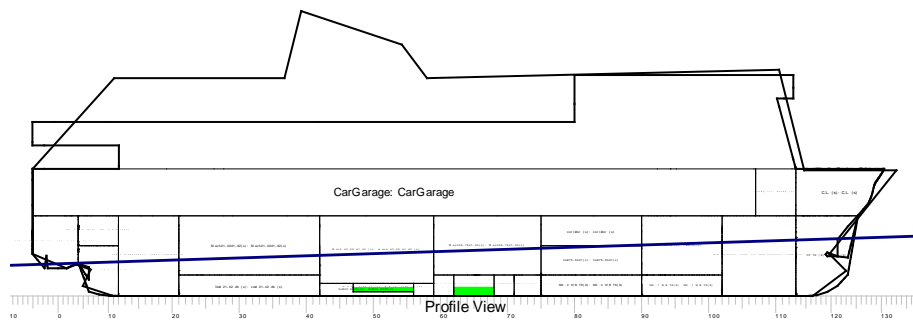
2-3 (P)**Immersion Particulars**

State of Openings = X-ray: Normal condition

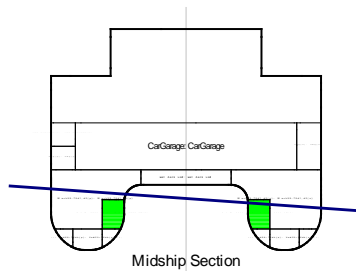
Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	24.727	Not immersed
1	45.860	-16.100	30.000	23.592	Not immersed

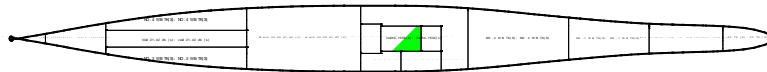
3-4 (P)



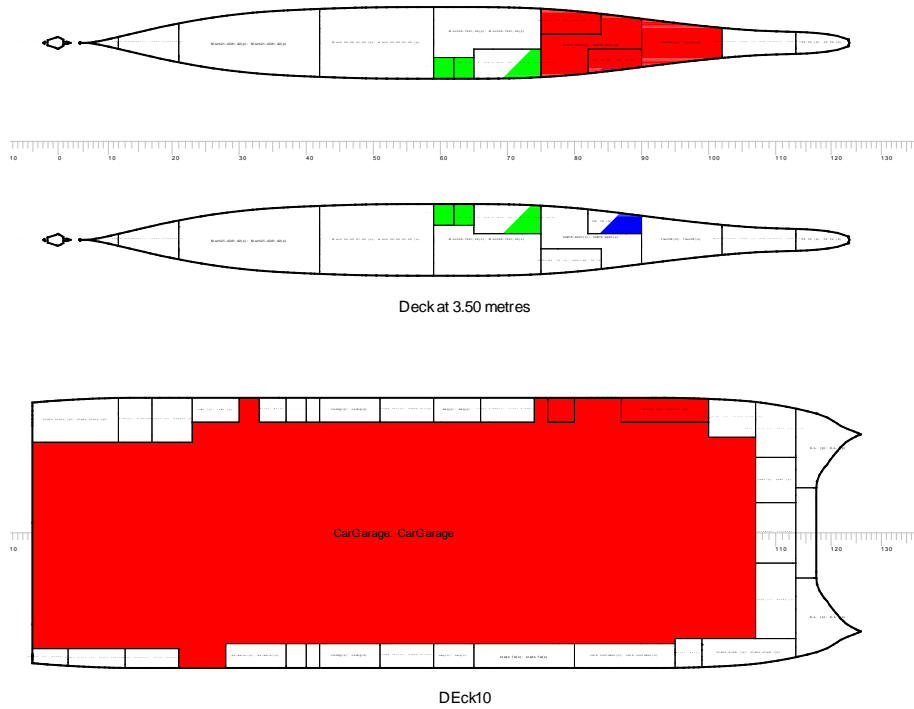
Deck at 4.74 metres



Midship Section



Deck at 2.50 metres



Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

3-4 (P)

3-4 (P)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					6015.0	49.51	-2.25	3.69	194586.2	
<i>Damaged</i>			<i>% perm</i>							
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
FW TK (P): FW TK (P)	82-90	95.0	42.7	1.032	-27.5	66.30	-9.36	4.79	0.0	
HEELING TK (P): HEELING TK (P)	75-84	95.0	95.0	1.032	-71.3	61.11	- 14.29	4.35	0.0	
NO.1 WB TK(P): NO.1	90-102	95.0	95.0	1.032	-73.3	74.17	-	1.44	0.0	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
WB TK(P)							11.74			
NO.2 WB TK(P): NO.2 WB TK(P)	75-90	95.0	95.0	1.032	-126.2	63.26	- 11.74	1.46	0.0	
Void75-90d1(p): Void75-90d1(p)	75-90	95.0	95.0	1.032	-174.4	63.23	- 11.47	4.32	0.0	
Void75-90d2(p): Void75-90d2(p)	75-90	95.0	43.0	1.032	-72.6	62.42	- 13.20	6.81	-8328.1	
Workshops(p): Workshops(p)	75-86	85.0	24.5	1.032	-36.5	62.20	-9.01	6.68	-2610.5	
fw+chil (p): fw+chil (p)	90-102	85.0	53.9	1.032	-258.4	74.06	- 11.76	5.51	-10484.4	
serv lift(p): serv lift(p)	76-80	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
spare(p): spare(p)	84-90	60.0	30.9	1.032	-18.5	67.21	- 14.35	6.94	-2226.9	
tail stor (p): tail stor (p)	87-100	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
wc(p): wc(s)	86-90	95.0	31.2	1.032	-16.8	68.00	-9.03	6.78	-1090.8	
Total Damaged					-875.5	67.34	- 11.83	4.44	-24740.8	
Total Buoyancy					5139.5	46.48	-0.62	3.56	169845.4	

Drafts at equilibrium angle

Draft at LCF	6.098	metres
Draft aft at marks	4.676	metres
Draft fwd at marks	7.631	metres
Draft at AP	4.676	metres
Draft at FP	7.631	metres
Mean draft at midships	6.154	metres

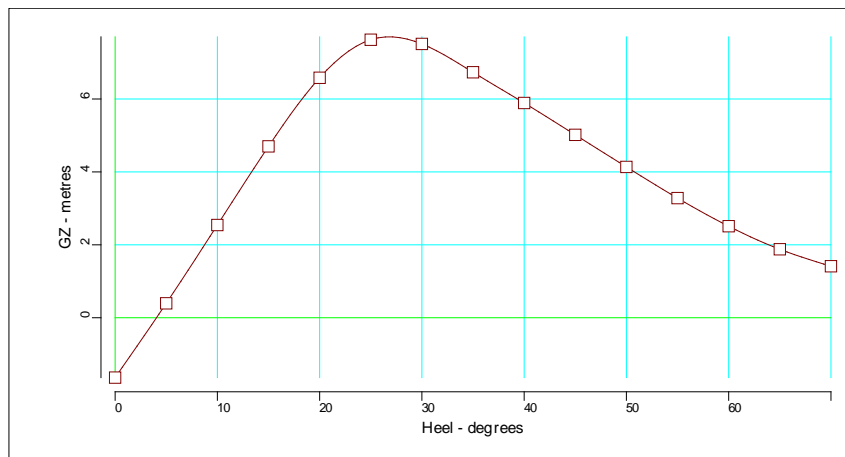
Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel to port	4.06	degrees
Trim by the bow	2.955	metres
KG	12.236	metres
FSC	0.023	metres
KGf	12.259	metres
GMt	23.793	metres
BMt	33.047	metres

Density of water	1.0320	tonnes/cu.m
BMI	123.309	metres
Waterplane area	1166.72	sq.metres
LCG	46.198	metres
LCB	46.478	metres
TCB	-0.622	metres
LCF	44.339	metres
TCF	-0.134	metres
TPC	12.041	tonnes/cm
MTC	69.095	tonnes-m/cm
Shell thickness	0.000	mm

3-4 (P)

FULL LOAD DEPARTURE: 3-4 (P)



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-1.6434	23.2857	2.474	6.073	23.92[0]
5.00	0.3949	24.5303	3.031	6.131	22.34[1]
10.00	2.5434	25.2945	3.380	6.004	20.73[1]
15.00	4.7003	24.2380	3.658	5.726	19.07[1]
20.00	6.5831	19.0039	4.160	5.301	17.36[1]
25.00	7.6268	7.3694	5.000	4.597	15.76[1]
30.00	7.5108	-7.1219	5.638	3.528	14.37[1]
35.00	6.7337	-9.3685	5.700	2.241	13.07[1]
40.00	5.8915	-9.8117	5.602	0.887	11.72[1]
45.00	5.0169	-9.9158	5.367	-0.512	10.32[1]
50.00	4.1366	-9.6767	5.023	-1.935	8.87[1]

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
55.00	3.2814	-8.9281	4.585	-3.366	7.38[1]
60.00	2.5101	-7.2074	4.042	-4.805	5.86[1]
65.00	1.8776	-5.1802	3.410	-6.251	4.34[1]
70.00	1.4121	-2.7619	2.733	-7.687	2.82[1]

3-4 (P)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	65.937	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	1.840	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.739	0.100
4	GM at least 0.05m in equilibrium position after flooding	23.286	0.050
5	Range of positive GZ to be > 7 degrees	65.937	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.739	0.050

Condition complies with the regulations

3-4 (P)

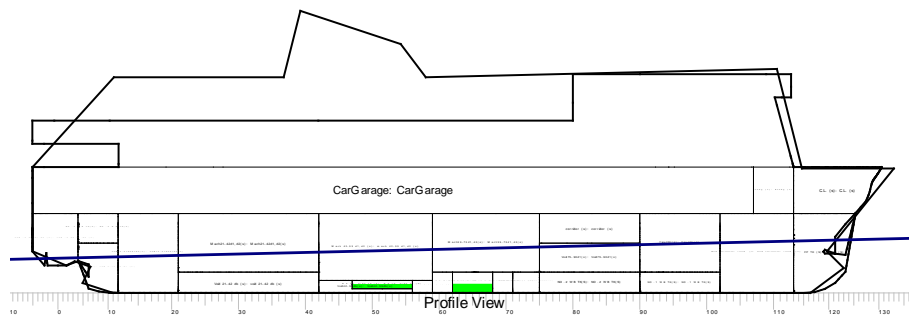
Immersion Particulars

State of Openings = X-ray: Normal condition

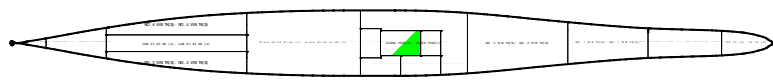
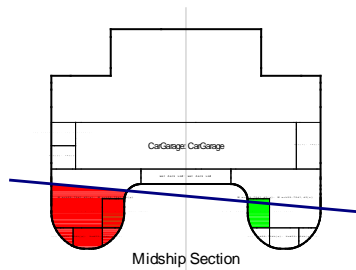
Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	24.930	Not immersed
1	45.860	-16.100	30.000	22.649	Not immersed

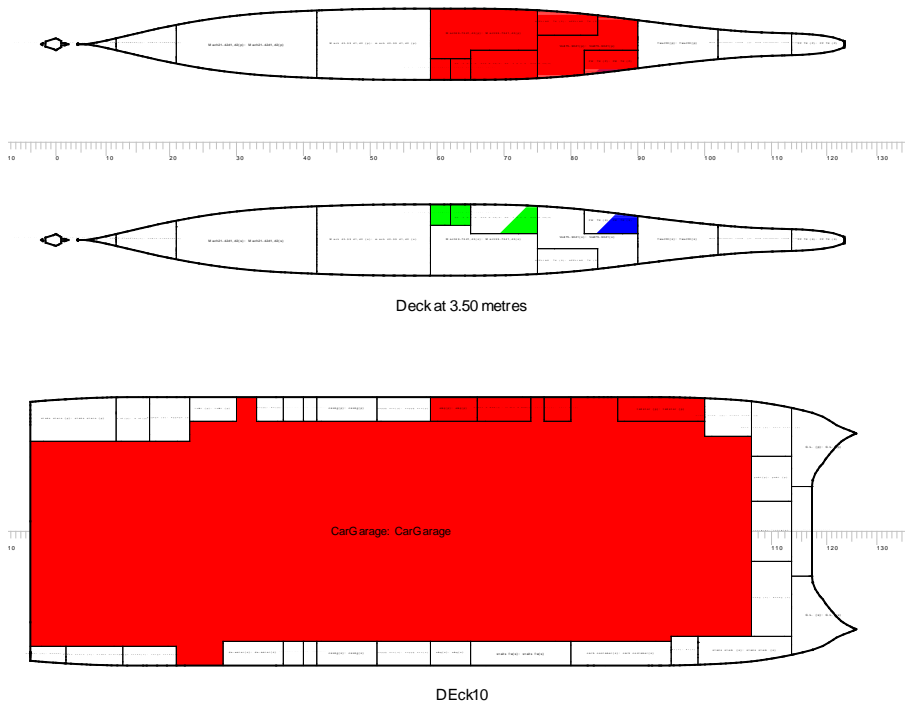
4-5 (P)



Deck at 4.74 metres



Deck at 2.50 metres



Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

4-5 (P)

4-5 (P)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					6283.1	48.38	-2.82	3.83	199366.4	
<i>Damaged</i>			<i>% perm</i>							
BILGE W DRAIN TK (P):	65-71	95.0	95.0	1.032	-15.6	51.97	-	1.65	0.0	
BILGE W DRAIN TK (P)							14.13			
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
FW TK (P): FW TK (P)	82-90	95.0	42.7	1.032	-27.5	66.30	-9.36	4.79	0.0	
H.F.O.SERV.TK(P):	62-65	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
H.F.O.SERV.TK(P)										
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	95.0	0.0	1.032	-0.0	46.00	-8.00	4.58	0.0	
HEELING TK (P): HEELING TK (P)	75-84	95.0	95.0	1.032	-71.3	61.11	- 14.29	4.35	0.0	
HFO OVFL TK (P): HFO OVFL TK (P)	59-62	95.0	95.0	1.032	-19.5	46.00	- 11.75	1.29	0.0	
Mach59-75d1,d2(p): Mach59-75d1,d2(p)	59-75	85.0	50.5	1.032	-355.9	51.12	- 12.77	5.32	-15027.4	
NO.1 H.F.O.STOR.TK(P): NO.1 H.F.O.STOR.TK(P)	62-68	95.0	55.1	1.032	-19.7	49.60	- 11.74	1.26	0.0	
NO.2 H.F.O.STOR.TK(P): NO.2 H.F.O.STOR.TK(P)	65-75	95.0	61.7	1.032	-61.4	53.60	-9.20	4.44	0.0	
NO.2 WB TK(P): NO.2 WB TK(P)	75-90	95.0	95.0	1.032	-126.2	63.26	- 11.74	1.46	0.0	
SEWAGE TK (P): SEWAGE TK (P)	68-71	95.0	95.0	1.032	-16.9	53.20	- 11.74	1.28	0.0	
Void59-75db(p): Void59-75db(p)	59-75	95.0	95.0	1.032	-85.9	52.28	- 11.31	1.56	0.0	
Void75-90d1(p): Void75-90d1(p)	75-90	95.0	95.0	1.032	-174.4	63.23	- 11.47	4.32	0.0	
Void75-90d2(p): Void75-90d2(p)	75-90	95.0	50.9	1.032	-86.0	62.35	- 13.22	6.96	-8358.5	
Workshops(p): Workshops(p)	75-86	85.0	28.9	1.032	-43.1	62.14	-8.99	6.79	-2680.2	
drencher hoistable(p): drencher hoistable(p)	68-74	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
eleq hoistable(p): eleq hoistable(p)	59-68	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
eleq(p): eleq(p)	59-66	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
serv lift(p): serv lift(p)	76-80	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
spare(p): spare(p)	84-90	60.0	35.7	1.032	-21.4	67.20	- 14.36	7.08	-2238.0	
stairs middle(p): stairs middle(p)	66-74	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
tail stor (p): tail stor (p)	87-100	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
wc(p): wc(s)	86-90	95.0	35.1	1.032	-18.8	68.00	-9.01	6.87	-1115.1	
Total Damaged					- 57.28 1143.7		- 12.00	4.33	-29419.2	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Buoyancy					5139.4	46.40	-0.78	3.72	169947.2	

Drafts at equilibrium angle

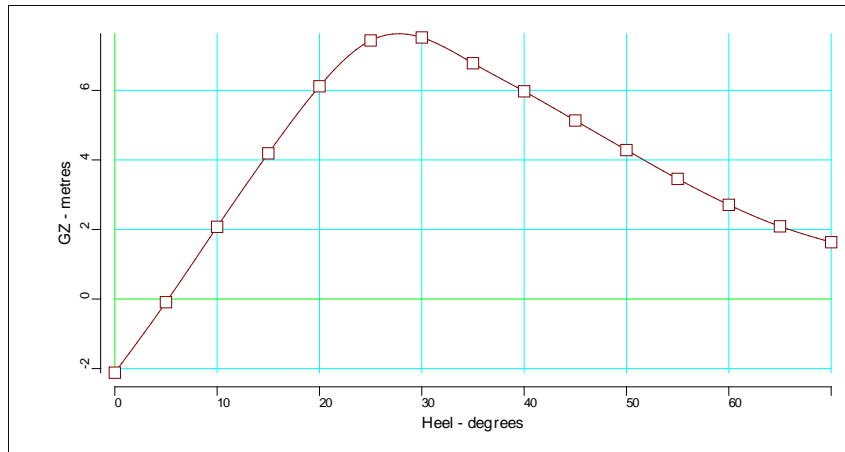
Draft at LCF	6.290	metres
Draft aft at marks	5.249	metres
Draft fwd at marks	7.406	metres
Draft at AP	5.249	metres
Draft at FP	7.406	metres
Mean draft at midships	6.328	metres

Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel to port	5.22	degrees
Trim by the bow	2.157	metres
KG	12.236	metres
FSC	0.023	metres
KGf	12.259	metres
GMt	24.485	metres
BMt	33.067	metres
BMI	141.158	metres
Waterplane area	1167.53	sq.metres
LCG	46.198	metres
LCB	46.399	metres
TCB	-0.783	metres
LCF	44.414	metres
TCF	-0.278	metres
TPC	12.049	tonnes/cm
MTC	79.097	tonnes-m/cm
Shell thickness	0.000	mm

4-5 (P)

FULL LOAD DEPARTURE: 4-5 (P)



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-2.1193	22.4849	1.793	6.214	23.78[0]
5.00	-0.0932	24.4165	2.138	6.301	22.17[1]
10.00	2.0763	24.9470	2.324	6.200	20.54[1]
15.00	4.1886	24.0130	2.608	5.968	18.83[1]
20.00	6.1172	20.5508	3.050	5.633	17.04[1]
25.00	7.4350	10.6925	3.733	5.075	15.29[1]
30.00	7.5205	-6.4191	4.414	4.091	13.82[1]
35.00	6.7806	-8.9801	4.532	2.804	12.52[1]
40.00	5.9722	-9.4672	4.514	1.433	11.18[1]
45.00	5.1318	-9.6356	4.378	0.003	9.82[1]
50.00	4.2825	-9.4859	4.136	-1.463	8.41[1]
55.00	3.4547	-8.7792	3.799	-2.949	6.96[1]
60.00	2.7086	-7.1720	3.348	-4.447	5.50[1]
65.00	2.0902	-5.2886	2.787	-5.946	4.03[1]
70.00	1.6336	-3.1107	2.211	-7.433	2.57[1]

4-5 (P)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	64.782	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	1.674	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.665	0.100
4	GM at least 0.05m in equilibrium position after flooding	22.485	0.050
5	Range of positive GZ to be > 7 degrees	64.782	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.665	0.050

Condition complies with the regulations

4-5 (P)

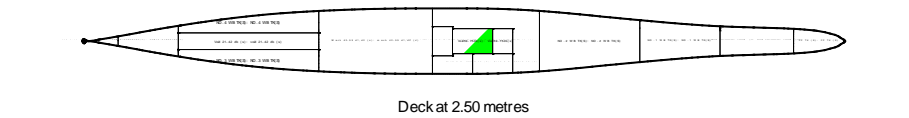
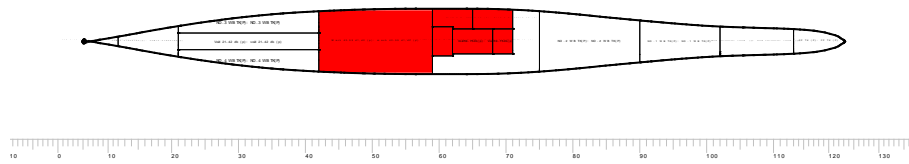
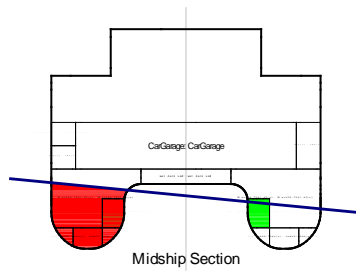
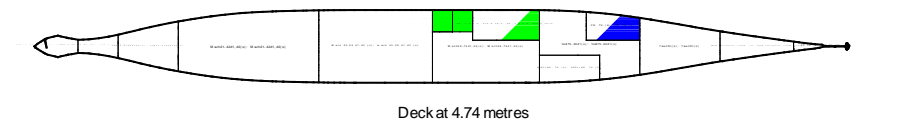
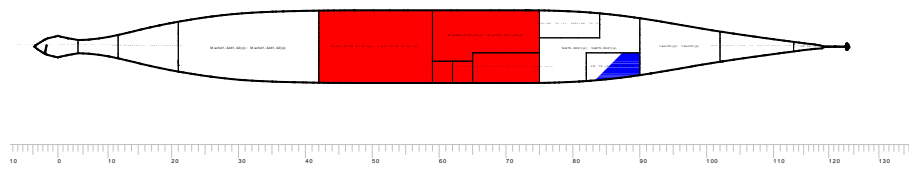
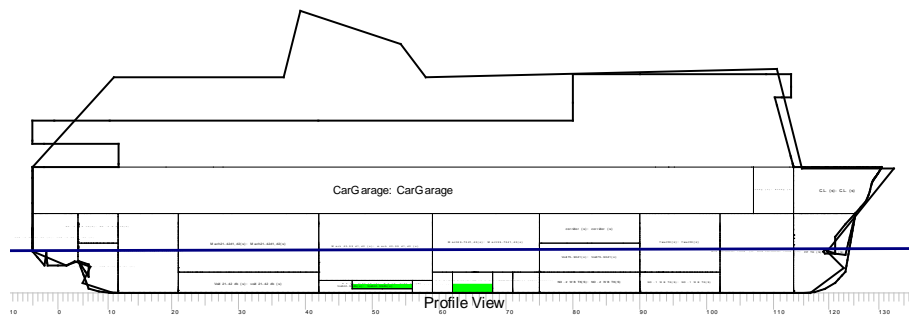
Immersion Particulars

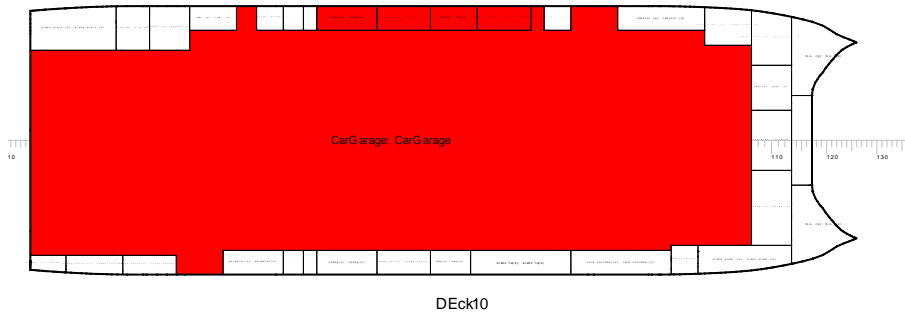
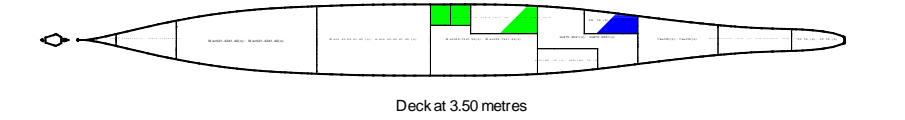
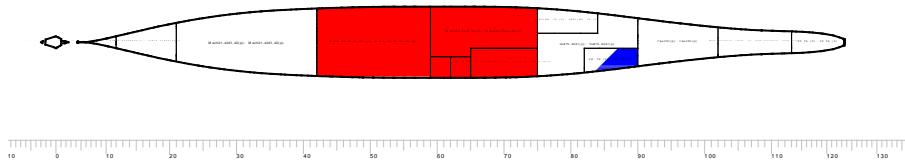
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	25.035	Not immersed
1	45.860	-16.100	30.000	22.107	Not immersed

5-6 (P)





Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

5-6 (P)

5-6 (P)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					6374.7	45.83	-2.99	3.85	201621.6	
<i>Damaged</i>		<i>% perm</i>								
BILGE W DRAIN TK (P):	65-71	95.0	95.0	1.032	-15.6	51.97	-	1.65	0.0	
BILGE W DRAIN TK (P)							14.13			
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
DIRTY OIL TK(P): DIRTY OIL TK(P)	56-59	95.0	95.0	1.032	-8.5	43.60	-	0.76	0.0	
							11.75			

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
H.F.O.SERV.TK(P): H.F.O.SERV.TK(P)	62-65	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
H.F.O.SETT.TK(P): H.F.O.SETT.TK(P)	59-62	95.0	0.0	1.032	-0.0	46.00	-8.00	4.58	0.0	
HFO OVFL TK (P): HFO OVFL TK (P)	59-62	95.0	95.0	1.032	-19.5	46.00	- 11.75	1.29	0.0	
LO SLUDGE TK(P): LO SLUDGE TK(P)	42-47	95.0	95.0	1.032	-5.1	33.26	- 13.63	1.03	0.0	
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	0.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Mach 42-59 d1,d2 (p): mach 42-59 d1,d2 (p)	42-59	85.0	58.6	1.032	-583.9	38.04	- 11.83	4.61	-16741.1	
Mach59-75d1,d2(p): Mach59-75d1,d2(p)	59-75	85.0	50.3	1.032	-354.7	51.04	- 12.79	5.31	-15778.1	
NO.1 H.F.O.STOR.TK(P): NO.1 H.F.O.STOR.TK(P)	62-68	95.0	55.1	1.032	-19.7	49.60	- 11.74	1.26	0.0	
NO.2 H.F.O.STOR.TK(P): NO.2 H.F.O.STOR.TK(P)	65-75	95.0	61.7	1.032	-61.4	53.60	-9.20	4.44	0.0	
SEWAGE TK (P): SEWAGE TK (P)	68-71	95.0	95.0	1.032	-16.9	53.20	- 11.74	1.28	0.0	
Void42-59db(p): Void42-59db(p)	42-59	95.0	95.0	1.032	-64.0	37.75	- 11.59	0.86	0.0	
Void59-75db(p): Void59-75db(p)	59-75	95.0	95.0	1.032	-85.9	52.28	- 11.31	1.56	0.0	
casing(p): casing(p)	42-51	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
drencher hoistable(p): drencher hoistable(p)	68-74	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
eleq hoistable(p): eleq hoistable(p)	59-68	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
eleq(p): eleq(p)	59-66	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs middle(p): stairs middle(p)	66-74	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
supply etc(p): supply etc(p)	51-59	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					- 44.23 1235.2	- 44.23 11.96	- 4.17 3.77	-32519.3		
Total Buoyancy					5139.4	46.22	-0.83	3.77	169102.4	

Drafts at equilibrium angle

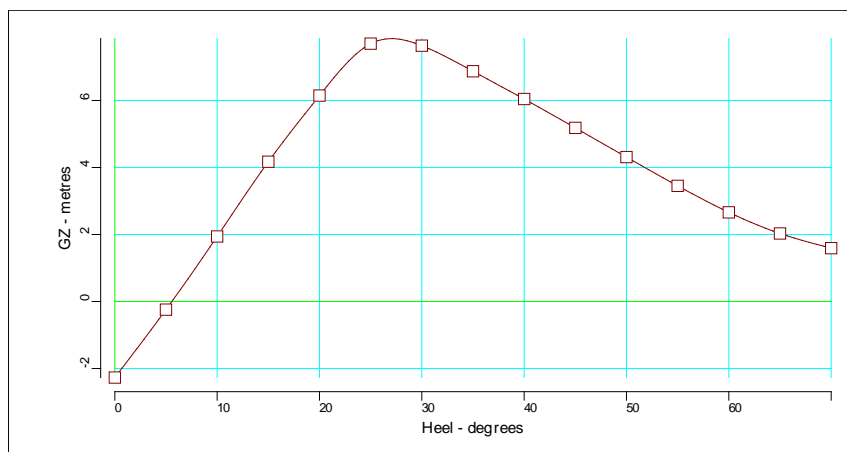
Draft at LCF	6.351	metres
Draft aft at marks	6.250	metres
Draft fwd at marks	6.465	metres
Draft at AP	6.250	metres
Draft at FP	6.465	metres
Mean draft at midships	6.358	metres

Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel to port	5.57	degrees
Trim by the bow	0.215	metres
KG	12.236	metres
FSC	0.023	metres
KGf	12.259	metres
GMt	24.368	metres
BMt	32.903	metres
BMI	143.769	metres
Waterplane area	1150.50	sq.metres
LCG	46.198	metres
LCB	46.218	metres
TCB	-0.830	metres
LCF	42.931	metres
TCF	-0.003	metres
TPC	11.873	tonnes/cm
MTC	80.559	tonnes-m/cm
Shell thickness	0.000	mm

5-6 (P)

FULL LOAD DEPARTURE: 5-6 (P)



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-2.2700	22.3506	0.135	6.225	23.78[0]
5.00	-0.2414	24.1718	0.206	6.326	22.16[1]
10.00	1.9422	25.8628	0.277	6.264	20.48[1]
15.00	4.1722	24.5991	0.475	6.053	18.76[1]
20.00	6.1469	21.1536	0.784	5.758	16.93[1]
25.00	7.6977	12.8104	1.087	5.312	15.07[1]
30.00	7.6373	-8.2342	1.323	4.297	13.63[1]
35.00	6.8732	-9.2159	1.338	2.980	12.36[1]
40.00	6.0442	-9.7161	1.333	1.584	11.05[1]
45.00	5.1834	-9.9592	1.305	0.126	9.70[1]
50.00	4.3104	-9.9604	1.231	-1.366	8.32[1]
55.00	3.4533	-9.4970	1.102	-2.871	6.89[1]
60.00	2.6625	-8.2965	0.930	-4.372	5.43[1]
65.00	2.0316	-5.7987	0.732	-5.880	3.97[1]
70.00	1.5928	-4.0568	0.530	-7.378	2.51[1]

5-6 (P)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	64.430	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	1.677	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.906	0.100
4	GM at least 0.05m in equilibrium position after flooding	22.351	0.050
5	Range of positive GZ to be > 7 degrees	64.430	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.906	0.050

Condition complies with the regulations

5-6 (P)

Immersion Particulars

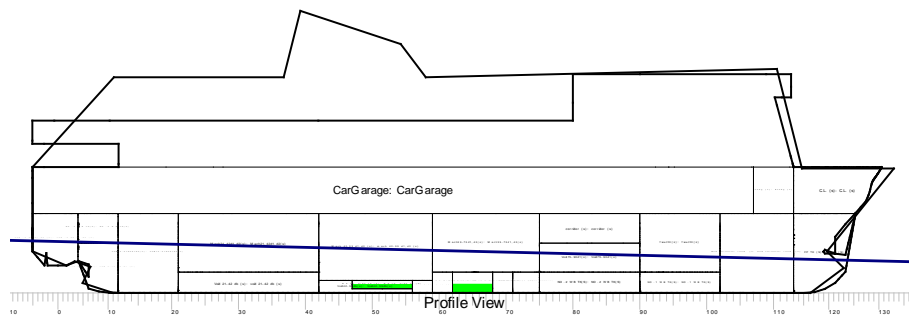
State of Openings = X-ray: Normal condition

Deck Edge

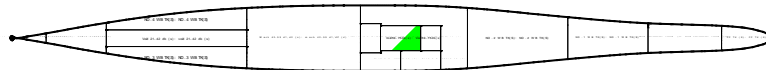
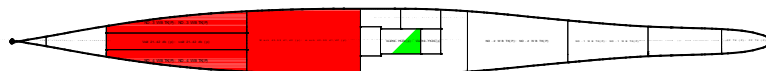
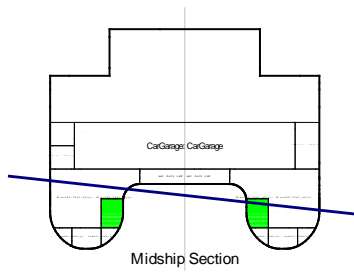
Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
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Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	25.102	Not immersed
1	45.860	-16.100	30.000	21.976	Not immersed

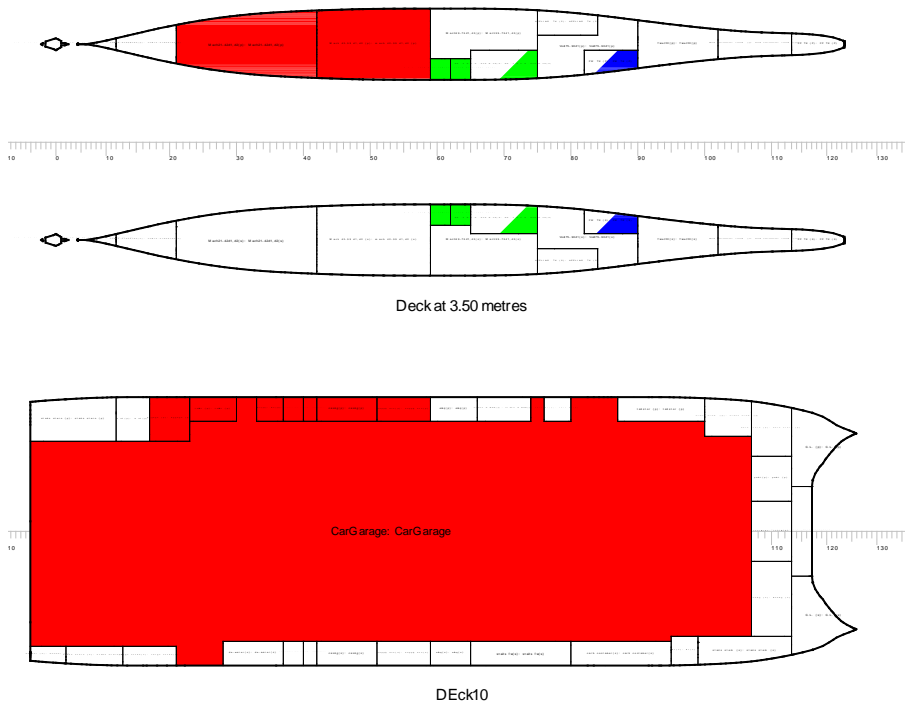
6-7 (P)



Deck at 4.74 metres



Deck at 2.50 metres



Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

6-7 (P)

6-7 (P)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					6610.8	42.49	-3.34	4.03	211742.2	
<i>Damaged</i>			<i>% perm</i>							
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
DIRTY OIL TK(P): DIRTY OIL TK(P)	56-59	95.0	95.0	1.032	-8.5	43.60	-11.75	0.76	0.0	
DO SERV TK(P): DO SERV TK(P)	21-25	95.0	27.8	1.032	-13.1	16.00	-8.86	7.04	-1213.5	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
LO SLUDGE TK(P): LO SLUDGE TK(P)	42-47	95.0	95.0	1.032	-5.1	33.26	-13.63	1.03	0.0	
ME LO CIRC TK (P): ME LO CIRC TK (P)	47-56	0.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Mach 42-59 d1,d2 (p): mach 42-59 d1,d2 (p)	42-59	85.0	62.8	1.032	-625.5	37.97	-11.82	4.82	-17528.2	
Mach21-42d1,d2(p): Mach21-42d1,d2(p)	21-42	85.0	64.8	1.032	-639.1	23.22	-11.90	5.52	-21051.3	
NO.3 WB TK(P): NO.3 WB TK(P)	21-42	0.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
NO.4 WB TK(P): NO.4 WB TK(P)	21-42	95.0	95.0	1.032	-39.2	24.59	-9.99	1.70	0.0	
Void 21-42 db (p): void 21-42 db (p)	21-42	95.0	95.0	1.032	-76.7	22.94	-11.75	1.31	0.0	
Void42-59db(p): Void42-59db(p)	42-59	95.0	95.0	1.032	-64.0	37.75	-11.59	0.86	0.0	
ae room exh(p): ae room exh(p)	37-40	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
casing(p): casing(p)	42-51	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
lift(p): lift(p)	33-37	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
luggage (p): luggage (p)	17-23	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs hoistable st1: stairs hoistable stern (p)	3-23	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
supply aft(p): supply aft(p)	40-42	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
supply etc(p): supply etc(p)	51-59	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
toilet (p): toilet (p)	23-30	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					- 30.23		- 11.77	4.67	-39793.0	
Total Buoyancy					5139.5	46.00	-0.93	3.84	171949.2	

Drafts at equilibrium angle

Draft at LCF	6.505	metres
Draft aft at marks	7.488	metres
Draft fwd at marks	5.295	metres
Draft at AP	7.488	metres

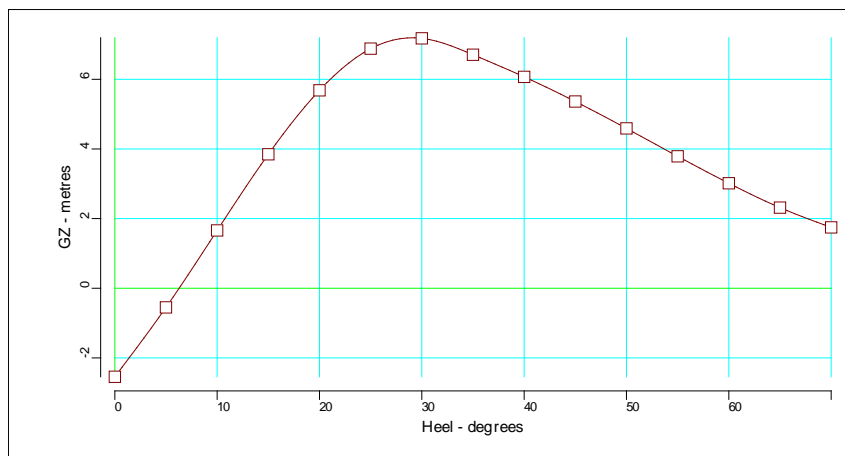
Draft at LCF	6.505	metres
Draft at FP	5.295	metres
Mean draft at midships	6.392	metres

Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel to port	6.27	degrees
Trim by the stern	2.192	metres
KG	12.236	metres
FSC	0.023	metres
KGf	12.259	metres
GMt	25.032	metres
BMt	33.457	metres
BMI	166.533	metres
Waterplane area	1223.42	sq.metres
LCG	46.198	metres
LCB	45.998	metres
TCB	-0.927	metres
LCF	40.953	metres
TCF	0.090	metres
TPC	12.626	tonnes/cm
MTC	93.316	tonnes-m/cm
Shell thickness	0.000	mm

6-7 (P)

FULL LOAD DEPARTURE: 6-7 (P)



Righting Lever (GZ) Curve

Heel to Port	GZ	Slope	Trim	WLrad	Freeboard
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(deg)	(m)	(m/rad)	(m)	(m)	(m)
0.00	-2.5425	21.8841	-1.906	6.226	23.77[0]
5.00	-0.5491	24.4283	-2.177	6.345	22.13[1]
10.00	1.6601	25.7199	-2.152	6.320	20.42[1]
15.00	3.8470	23.6213	-2.217	6.176	18.63[1]
20.00	5.6830	18.3496	-2.453	5.961	16.71[1]
25.00	6.8806	10.7442	-3.215	5.636	14.74[1]
30.00	7.1766	1.1829	-4.548	4.960	12.95[1]
35.00	6.7058	-6.8758	-5.091	3.773	11.54[1]
40.00	6.0703	-7.6640	-5.149	2.391	10.22[1]
45.00	5.3625	-8.3873	-4.972	0.895	8.92[1]
50.00	4.5893	-8.7995	-4.611	-0.678	7.62[1]
55.00	3.7890	-8.6863	-4.161	-2.283	6.30[1]
60.00	3.0154	-8.0799	-3.675	-3.880	4.94[1]
65.00	2.3155	-7.1060	-3.215	-5.440	3.53[1]
70.00	1.7479	-5.2400	-2.886	-6.942	2.08[1]

6-7 (P)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	63.729	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	1.513	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.179	0.100
4	GM at least 0.05m in equilibrium position after flooding	21.884	0.050
5	Range of positive GZ to be > 7 degrees	63.729	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.179	0.050

Condition complies with the regulations

6-7 (P)

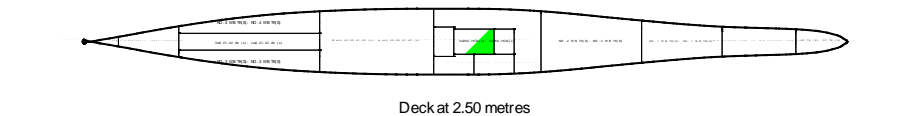
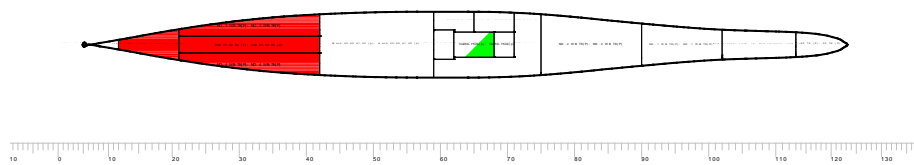
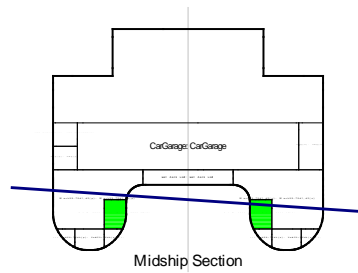
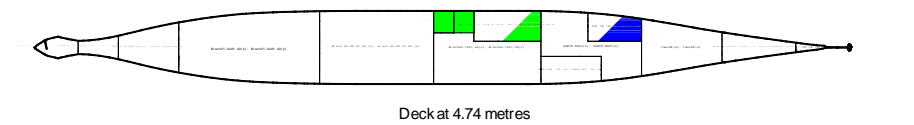
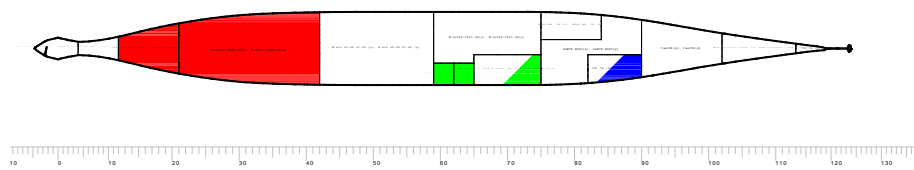
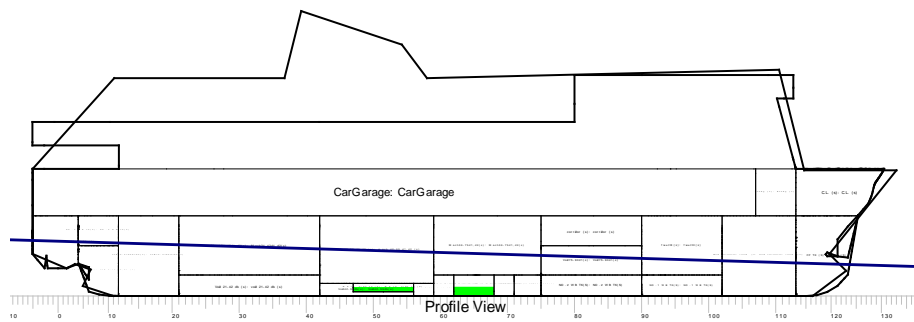
Immersion Particulars

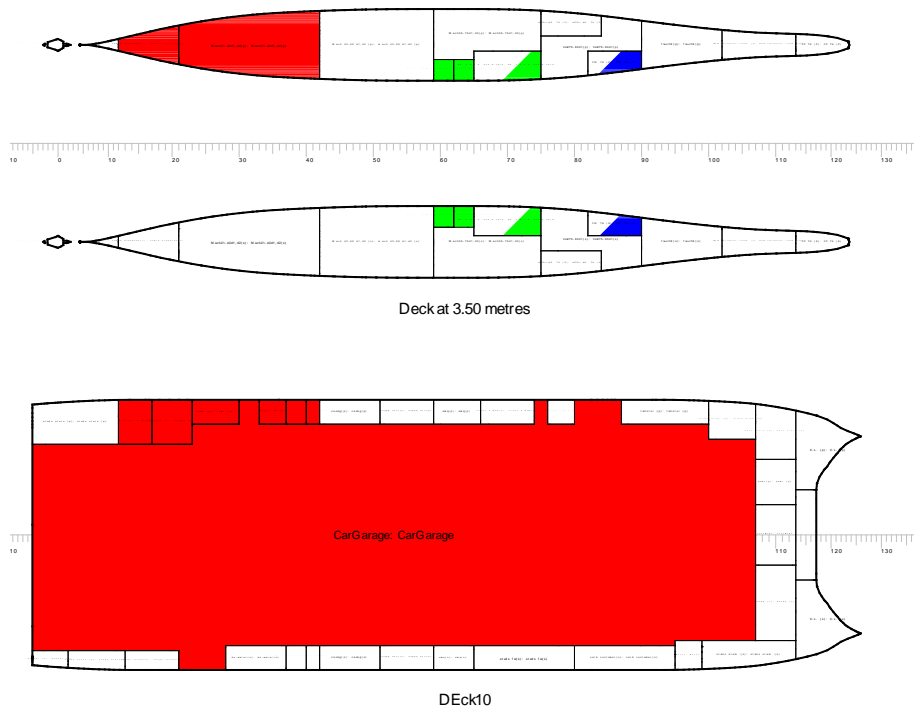
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	25.232	Not immersed
1	45.860	-16.100	30.000	21.715	Not immersed

7-8 (P)





Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

7-8 (P)

7-8 (P)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					6019.1	42.18	-2.23	3.68	202670.3	
<i>Damaged</i>			<i>% perm</i>							
A/E LO STOR TK (P): A/E LO STOR TK (P)	0-0	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
DO SERV TK(P): DO SERV TK(P)	21-25	95.0	13.1	1.032	-6.2	15.98	-9.08	6.22	-1023.1	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Mach21-42d1,d2(p): Mach21-42d1,d2(p)	21-42	85.0	55.1	1.032	-543.6	23.19	- 11.88	5.11	-21259.0	
NO.3 WB TK(P): NO.3 WB TK(P)	21-42	0.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
NO.4 WB TK(P): NO.4 WB TK(P)	21-42	95.0	95.0	1.032	-39.2	24.59	-9.99	1.70	0.0	
UP BILGE W TK (P): UP BILGE W TK (P)	16-21	95.0	47.7	1.032	-18.9	12.44	- 14.30	7.04	-2774.7	
Void 21-42 db (p): void 21-42 db (p)	21-42	95.0	95.0	1.032	-76.7	22.94	- 11.75	1.31	0.0	
Void12-21dbd1d2(p): Void12-21dbd1d2(p)	12-21	95.0	63.1	1.032	-194.9	10.92	- 11.64	4.89	-6789.8	
ae room exh(p): ae room exh(p)	37-40	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
lift(p): lift(p)	33-37	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
luggage (p): luggage (p)	17-23	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
mail (p): mail (p)	12-17	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs hoistable st1: stairs hoistable stern (p)	3-23	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
supply aft(p): supply aft(p)	40-42	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
toilet (p): toilet (p)	23-30	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					-879.6	20.23	- 11.77	4.63	-31846.6	
Total Buoyancy					5139.5	45.94	-0.60	3.52	170823.7	

Drafts at equilibrium angle

Draft at LCF	6.066 metres
Draft aft at marks	7.342 metres
Draft fwd at marks	4.631 metres
Draft at AP	7.342 metres
Draft at FP	4.631 metres
Mean draft at midships	5.986 metres

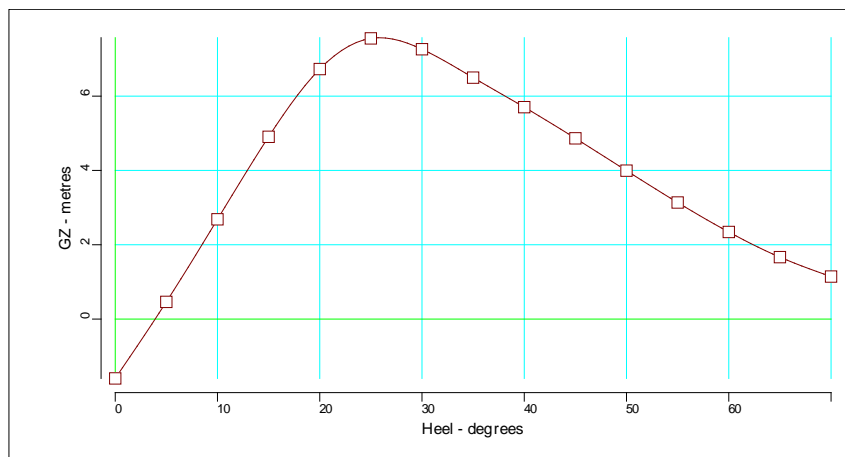
Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel to port	3.91 degrees

Density of water	1.0320	tonnes/cu.m
Trim by the stern	2.710	metres
KG	12.236	metres
FSC	0.023	metres
KGf	12.259	metres
GMt	24.010	metres
BMt	33.238	metres
BMI	133.573	metres
Waterplane area	1180.22	sq.metres
LCG	46.198	metres
LCB	45.940	metres
TCB	-0.598	metres
LCF	43.006	metres
TCF	0.683	metres
TPC	12.180	tonnes/cm
MTC	74.847	tonnes-m/cm
Shell thickness	0.000	mm

7-8 (P)

FULL LOAD DEPARTURE: 7-8 (P)



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-1.5975	23.4552	-2.315	5.897	24.09[0]
5.00	0.4631	24.9004	-2.759	5.977	22.49[1]
10.00	2.6847	25.9679	-2.846	5.931	20.80[1]
15.00	4.9058	24.2514	-2.907	5.739	19.06[1]
20.00	6.7287	17.0704	-3.207	5.421	17.25[1]

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
25.00	7.5538	5.4697	-4.277	4.864	15.50[1]
30.00	7.2619	-7.3470	-5.482	3.922	13.98[1]
35.00	6.4981	-8.8873	-5.916	2.695	12.61[1]
40.00	5.7028	-9.3045	-5.981	1.355	11.25[1]
45.00	4.8646	-9.5929	-5.707	-0.073	9.88[1]
50.00	3.9938	-9.4560	-5.192	-1.555	8.49[1]
55.00	3.1365	-8.8788	-4.572	-3.053	7.07[1]
60.00	2.3437	-7.8240	-3.942	-4.542	5.60[1]
65.00	1.6665	-6.4456	-3.380	-6.002	4.09[1]
70.00	1.1442	-4.3011	-2.929	-7.413	2.55[1]

7-8 (P)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	66.086	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	1.881	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.606	0.100
4	GM at least 0.05m in equilibrium position after flooding	23.455	0.050
5	Range of positive GZ to be > 7 degrees	66.086	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.606	0.050

Condition complies with the regulations

7-8 (P)

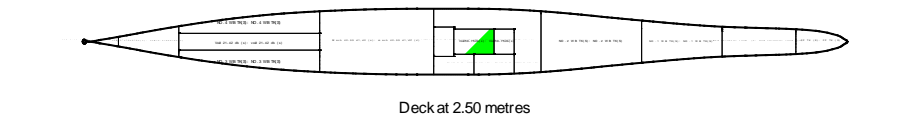
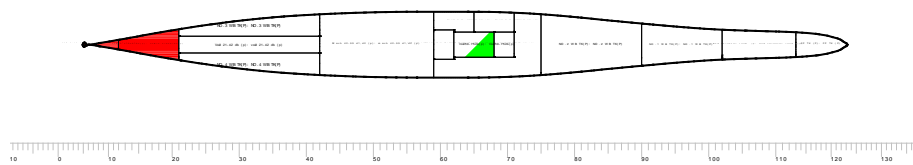
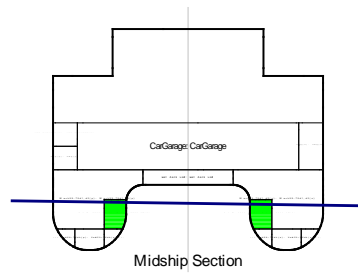
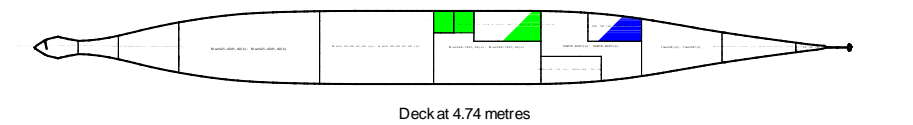
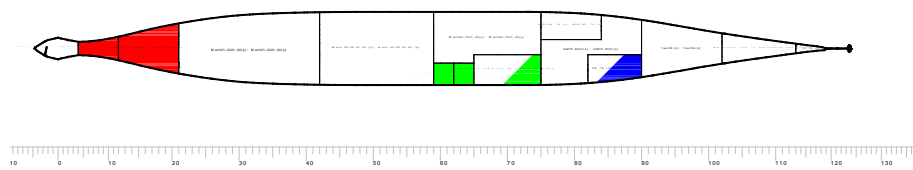
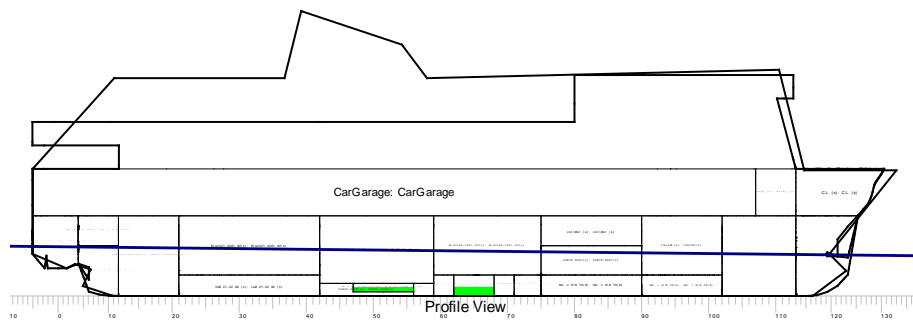
Immersion Particulars

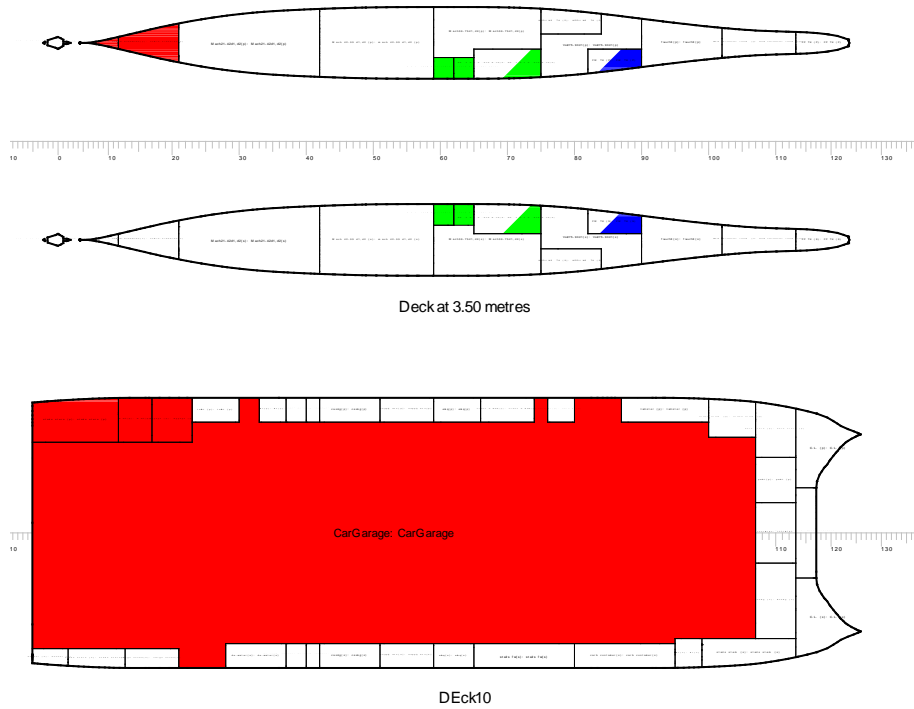
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	25.056	Not immersed
1	45.860	-16.100	30.000	22.859	Not immersed

8-9 (P)





Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

8-9 (P)

8-9 (P)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S (M)
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					5307.2	44.96	-0.50	3.25	185718.4	
<i>Damaged</i>			<i>% perm</i>							
A/E LO STOR TK (P): A/E LO STOR TK (P)	0-0	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
NO.5 WB TK(p): NO.5 WB TK(p)	4-12	95.0	2.3	1.032	-3.1	4.78	- 11.89	6.08	-3012.2	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
UP BILGE W TK (P): UP BILGE W TK (P)	16-21	95.0	2.3	1.032	-0.9	12.38	-14.09	6.06	-1727.8	
Void 4-12 db,d1 (p): void 4-12 db,d1 (p)	4-12	95.0	95.0	1.032	-33.0	5.23	11.74	4.23	0.0	
Void12-21dbd1d2(p): Void12-21dbd1d2(p)	12-21	95.0	42.4	1.032	-130.7	11.22	11.74	3.85	-4665.6	
luggage (p): luggage (p)	17-23	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
mail (p): mail (p)	12-17	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs hoistable st1: stairs hoistable stern (p)	3-23	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs stern (p): stairs stern (p)	-5-12	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					-167.8	9.93	-11.76	3.98	-9405.7	
Total Buoyancy					5139.5	46.10	-0.13	3.23	176312.7	

Drafts at equilibrium angle

Draft at LCF	5.590 metres
Draft aft at marks	6.045 metres
Draft fwd at marks	5.082 metres
Draft at AP	6.045 metres
Draft at FP	5.082 metres
Mean draft at midships	5.564 metres

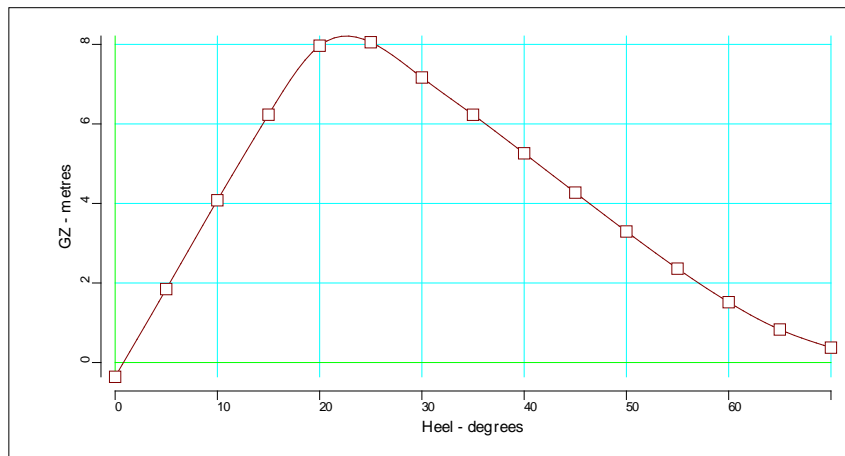
Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel to port	0.81 degrees
Trim by the stern	0.963 metres
KG	12.236 metres
FSC	0.023 metres
KGf	12.259 metres
GMt	25.193 metres
BMt	34.306 metres
BMI	111.292 metres
Waterplane area	1196.50 sq.metres
LCG	46.198 metres

Density of water	1.0320	tonnes/cu.m
LCB	46.103	metres
TCB	-0.129	metres
LCF	43.313	metres
TCF	0.363	metres
TPC	12.348	tonnes/cm
MTC	62.361	tonnes-m/cm
Shell thickness	0.000	mm

8-9 (P)

FULL LOAD DEPARTURE: 8-9 (P)



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLRad (m)	Freeboard (m)
0.00	-0.3586	25.2498	-0.905	5.558	24.44[0]
5.00	1.8476	25.5876	-1.152	5.551	22.93[1]
10.00	4.0805	25.4332	-1.169	5.437	21.31[1]
15.00	6.2322	23.2810	-1.086	5.168	19.64[1]
20.00	7.9666	14.8511	-1.288	4.735	17.95[1]
25.00	8.0540	-9.8064	-2.029	3.852	16.53[1]
30.00	7.1671	-10.4602	-2.173	2.611	15.31[1]
35.00	6.2313	-10.9495	-2.241	1.324	14.01[1]
40.00	5.2610	-11.2504	-2.251	0.008	12.62[1]
45.00	4.2734	-11.3253	-2.228	-1.322	11.15[1]
50.00	3.2956	-11.0130	-2.171	-2.654	9.60[1]
55.00	2.3612	-10.2959	-2.084	-3.981	8.00[1]
60.00	1.5184	-8.8159	-1.941	-5.309	6.37[1]
65.00	0.8319	-6.4988	-1.697	-6.646	4.73[1]

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
70.00	0.3766	-3.3351	-1.429	-7.982	3.11[1]

8-9 (P)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	69.185	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	2.392	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	8.279	0.100
4	GM at least 0.05m in equilibrium position after flooding	25.250	0.050
5	Range of positive GZ to be > 7 degrees	69.185	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	8.279	0.050

Condition complies with the regulations

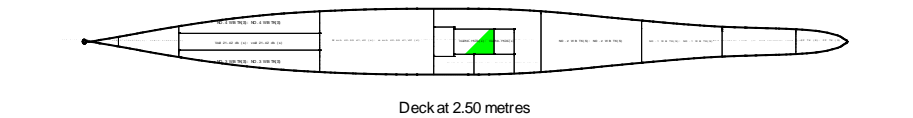
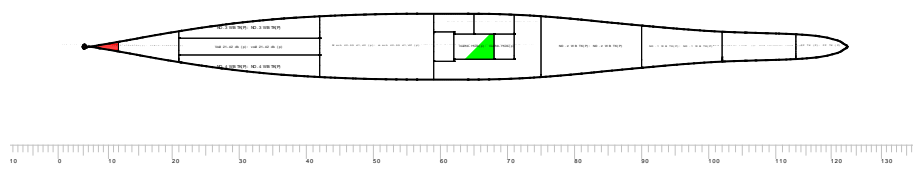
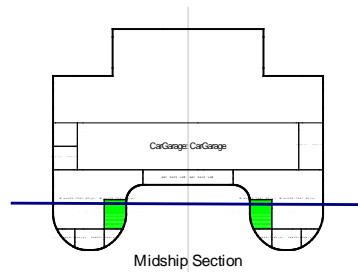
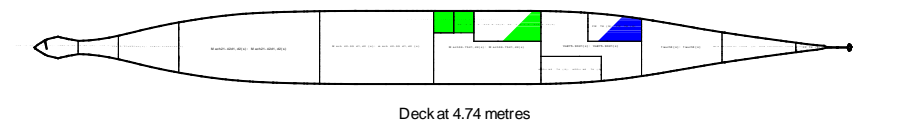
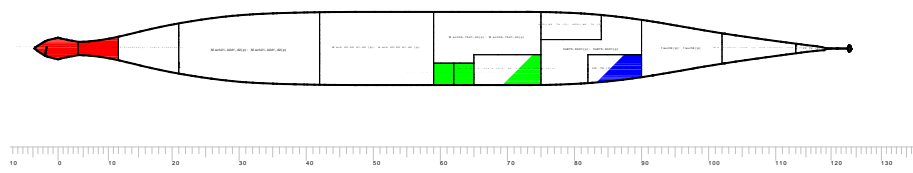
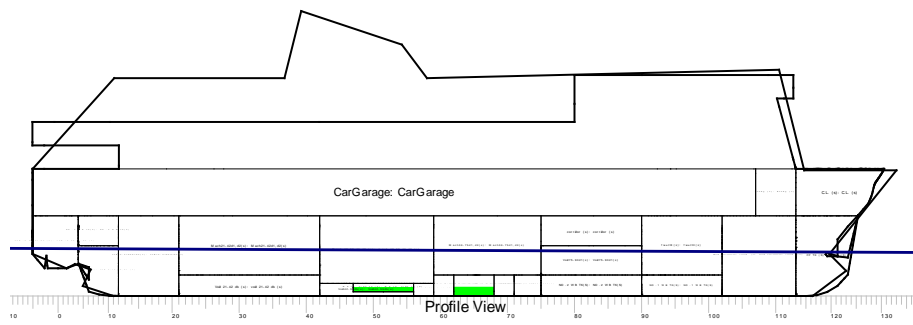
8-9 (P)**Immersion Particulars**

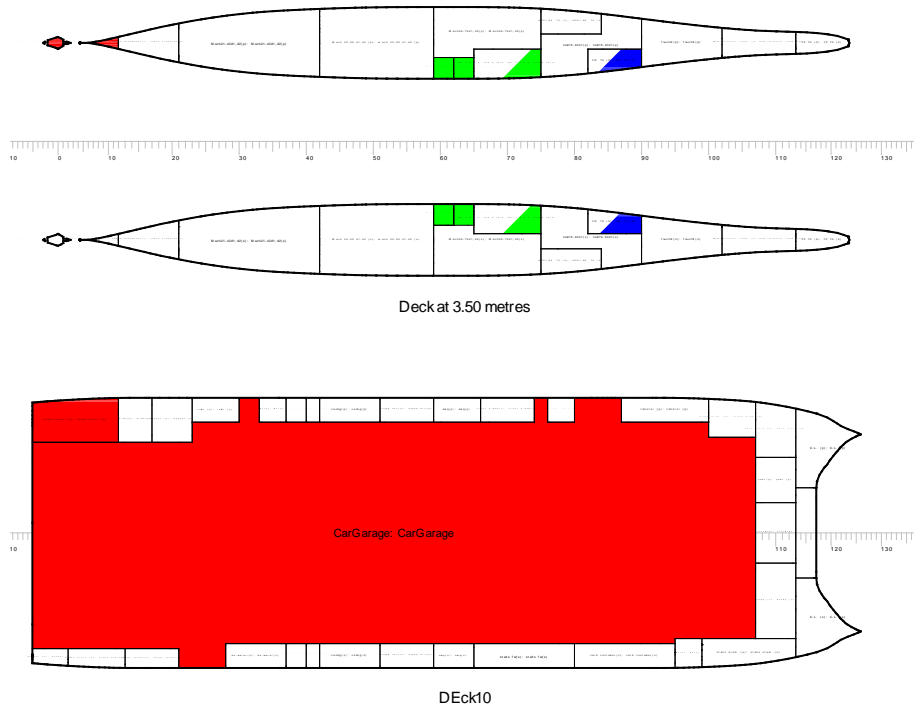
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	24.667	Not immersed
1	45.860	-16.100	30.000	24.209	Not immersed

9-10 (P)





Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

9-10 (P)

9-10 (P)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					5187.1	45.76	-0.15	3.19	183091.0	
<i>Damaged</i>			<i>% perm</i>							
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
NO.5 WB TK(p): NO.5 WB TK(p)	4-12	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Void -4 db,d1,d2 (p): void -4 db,d1,d2 (p)	-5-4	95.0	11.8	1.032	-19.5	0.01	-11.74	4.91	-2295.9	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Void 4-12 db,d1 (p): void 4-12 db,d1 (p)	4-12	95.0	81.0	1.032	-28.1	5.28	-11.74	3.95	-2441.4	
hydr hoistable stern: hydr hoistable stern (p)	-5-3	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs hoistable st1: stairs hoistable stern (p)	3-23	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs stern (p): stairs stern (p)	-5-12	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					-47.6	3.13	-11.74	4.34	-4737.3	
Total Buoyancy					5139.4	46.16	-0.04	3.18	178353.6	

Drafts at equilibrium angle

Draft at LCF	5.506 metres
Draft aft at marks	5.700 metres
Draft fwd at marks	5.289 metres
Draft at AP	5.700 metres
Draft at FP	5.289 metres
Mean draft at midships	5.495 metres

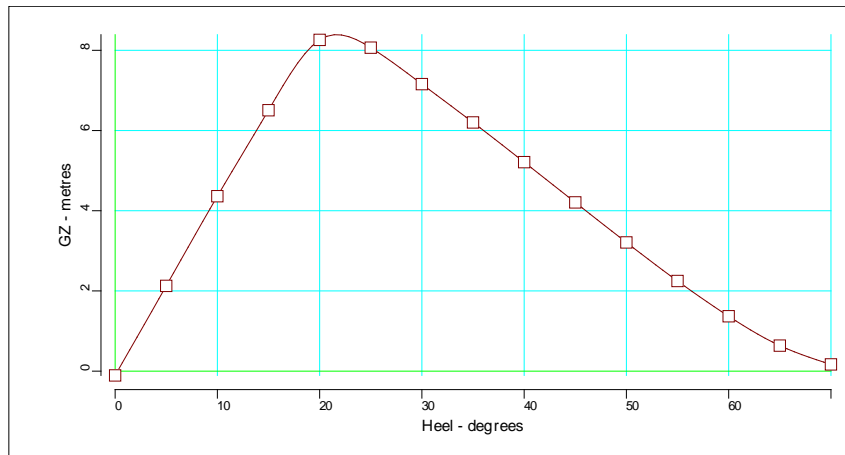
Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel to port	0.24 degrees
Trim by the stern	0.412 metres
KG	12.236 metres
FSC	0.023 metres
KGf	12.259 metres
GMt	25.609 metres
BMt	34.703 metres
BMI	110.536 metres
Waterplane area	1208.68 sq.metres
LCG	46.198 metres
LCB	46.158 metres
TCB	-0.041 metres
LCF	43.315 metres
TCF	0.238 metres

Density of water	1.0320	tonnes/cu.m
TPC	12.474	tonnes/cm
MTC	61.937	tonnes-m/cm
Shell thickness	0.000	mm

9-10 (P)

FULL LOAD DEPARTURE: 9-10 (P)



Righting Lever (GZ) Curve

Heel to Port (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-0.1075	25.6282	-0.401	5.494	24.51[0]
5.00	2.1260	25.7392	-0.547	5.463	23.02[1]
10.00	4.3620	25.3653	-0.472	5.321	21.43[1]
15.00	6.5070	23.4835	-0.330	5.028	19.78[1]
20.00	8.2612	14.5219	-0.302	4.543	18.14[1]
25.00	8.0669	-10.0921	-0.407	3.507	16.88[1]
30.00	7.1580	-10.7012	-0.436	2.244	15.69[1]
35.00	6.2024	-11.1699	-0.472	0.951	14.39[1]
40.00	5.2126	-11.4584	-0.540	-0.355	12.99[1]
45.00	4.2080	-11.5076	-0.642	-1.660	11.49[1]
50.00	3.2095	-11.2895	-0.768	-2.957	9.91[1]
55.00	2.2479	-10.6256	-0.893	-4.243	8.26[1]
60.00	1.3688	-9.4064	-0.979	-5.528	6.58[1]
65.00	0.6371	-7.1490	-0.975	-6.818	4.91[1]
70.00	0.1682	-3.1920	-0.849	-8.126	3.26[1]

9-10 (P)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	69.760	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	2.501	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	8.464	0.100
4	GM at least 0.05m in equilibrium position after flooding	25.628	0.050
5	Range of positive GZ to be > 7 degrees	69.760	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	8.464	0.050

Condition complies with the regulations

9-10 (P)

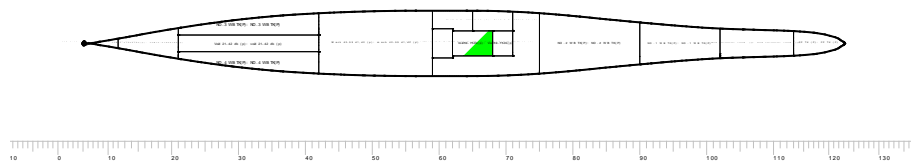
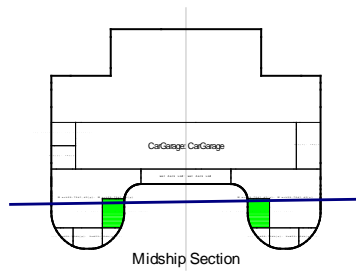
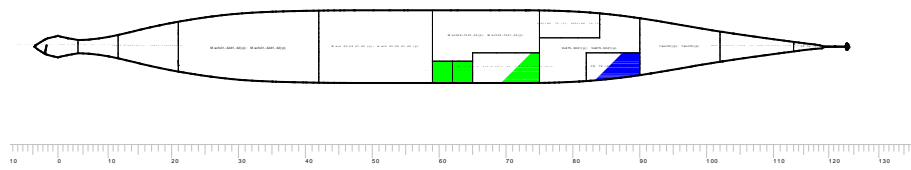
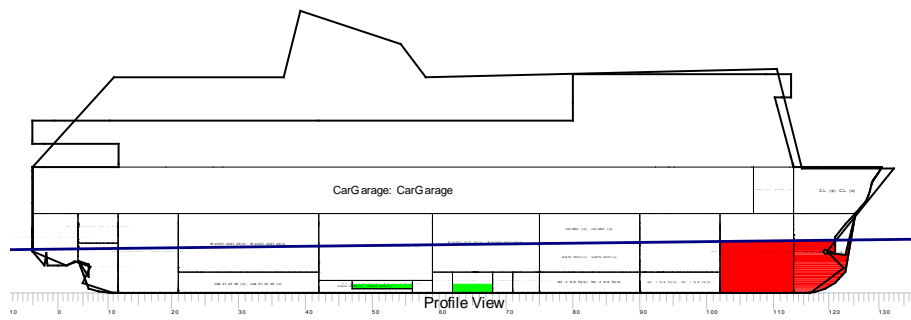
Immersion Particulars

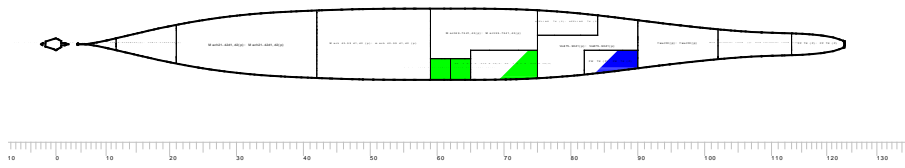
State of Openings = X-ray: Normal condition

Deck Edge

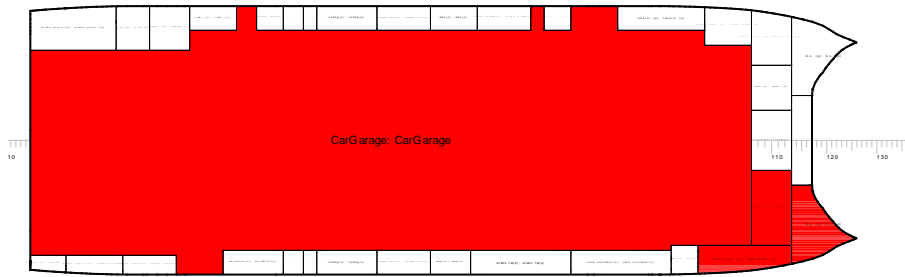
Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	24.575	Not immersed
1	45.860	-16.100	30.000	24.440	Not immersed

1-2 (S)





Deck at 3.50 metres



DEck10

Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

1-2 (S)

1-2 (S)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					5311.7	47.56	0.51	3.25	182205.2	
<i>Damaged</i>		<i>% perm</i>								
Bow thruster room (s): bow thruster room (s)	102- 113	85.0	35.8	1.032	-124.5	83.24	11.74	3.20	-3053.7	
C.L. (s): C.L. (s)	113- 133	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
FP TK (S): FP TK (S)	113-125	95.0	48.4	1.032	-47.8	90.37	11.74	2.89	-611.7	
lashing (s): lashing (s)	107-113	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs stem (s): stairs stem (s)	99-113	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					-172.2	85.22	11.74	3.11	-3665.4	
Total Buoyancy					5139.5	46.30	0.13	3.26	178539.8	

Drafts at equilibrium angle

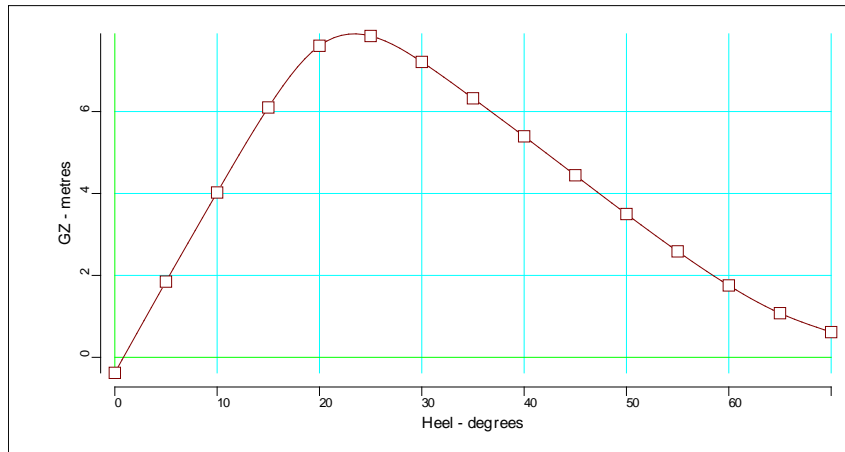
Draft at LCF	5.603 metres
Draft aft at marks	5.104 metres
Draft fwd at marks	6.170 metres
Draft at AP	5.104 metres
Draft at FP	6.170 metres
Mean draft at midships	5.637 metres

Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel to starboard	0.85 degrees
Trim by the bow	1.066 metres
KG	12.236 metres
FSC	0.023 metres
KGf	12.259 metres
GMt	25.623 metres
BMt	34.739 metres
BMI	110.647 metres
Waterplane area	1209.34 sq.metres
LCG	46.198 metres
LCB	46.303 metres
TCB	0.130 metres
LCF	43.009 metres
TCF	0.021 metres
TPC	12.480 tonnes/cm
MTC	62.000 tonnes-m/cm
Shell thickness	0.000 mm

1-2 (S)

FULL LOAD DEPARTURE: 1-2 (S)



Righting Lever (GZ) Curve

Heel to Stbd (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-0.3796	25.7580	1.032	5.633	24.36[0]
5.00	1.8486	25.5428	1.323	5.598	22.88[0]
10.00	4.0239	25.2001	1.822	5.432	21.31[0]
15.00	6.0995	23.3493	2.493	5.138	19.66[0]
20.00	7.6056	13.8420	3.620	4.668	18.00[0]
25.00	7.8438	-0.8138	5.176	3.871	16.48[0]
30.00	7.2111	-9.9014	5.891	2.750	15.14[0]
35.00	6.3223	-10.4093	5.937	1.481	13.83[0]
40.00	5.3942	-10.6994	5.747	0.155	12.45[0]
45.00	4.4438	-10.6968	5.403	-1.202	11.01[0]
50.00	3.4974	-10.3805	4.970	-2.570	9.51[0]
55.00	2.5865	-9.6507	4.474	-3.934	7.95[0]
60.00	1.7540	-8.1264	3.919	-5.290	6.35[0]
65.00	1.0769	-5.6503	3.270	-6.651	4.74[0]
70.00	0.6158	-2.6522	2.591	-8.009	3.14[0]

1-2 (S)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	69.153	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	2.326	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.887	0.100
4	GM at least 0.05m in equilibrium position after flooding	25.623	0.050

#	Criterion	Actual Value	Critical Value
5	Range of positive GZ to be > 7 degrees	69.153	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.887	0.050

Condition complies with the regulations

1-2 (S)

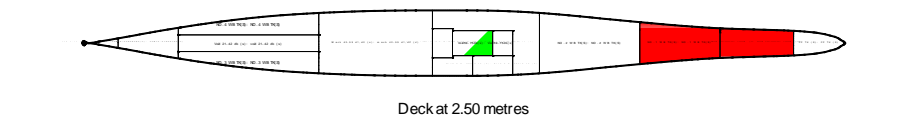
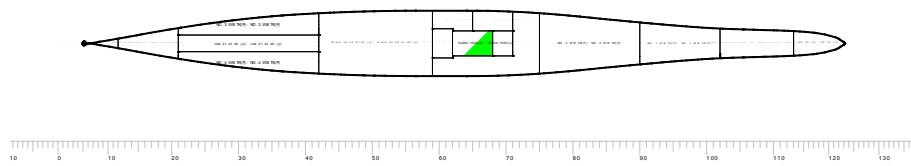
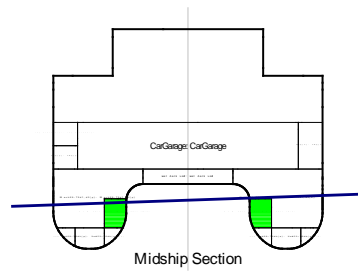
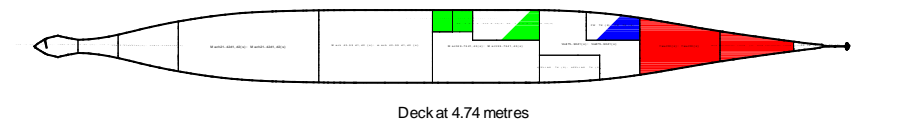
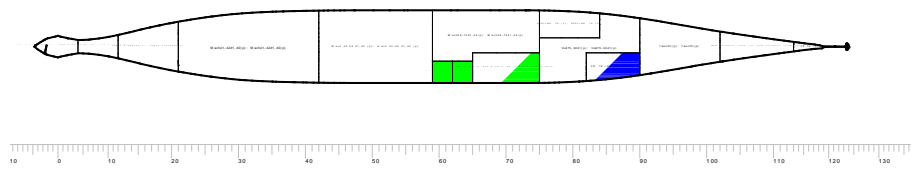
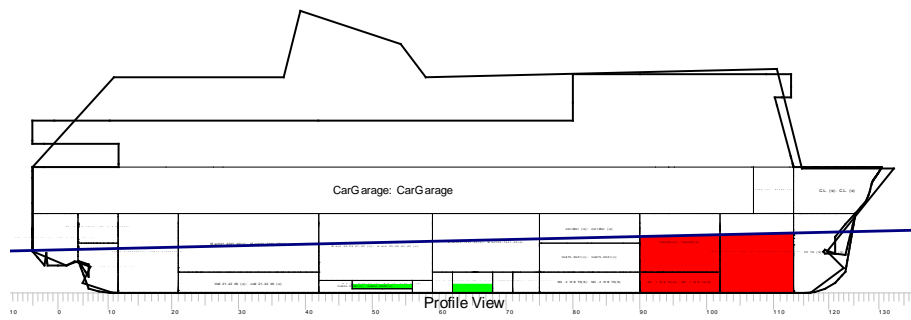
Immersion Particulars

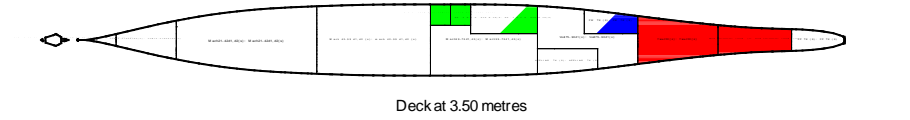
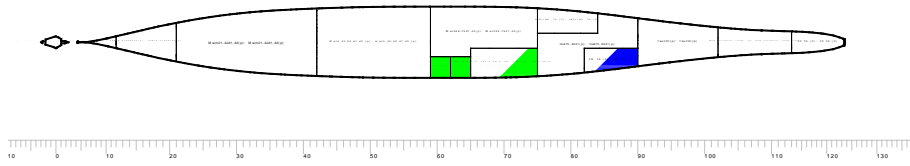
State of Openings = X-ray: Normal condition

Deck Edge

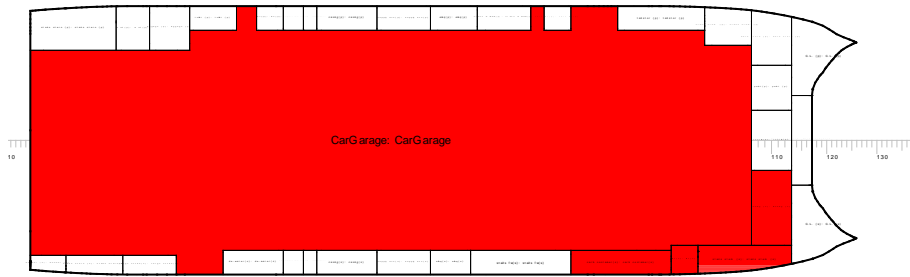
Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	24.129	Not immersed
1	45.860	-16.100	30.000	24.605	Not immersed

2-3 (S)





Deck at 3.50 metres



DEck10

Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

2-3 (S)

2-3 (S)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					5553.0	48.70	1.16	3.40	185294.3	
<i>Damaged</i>		<i>% perm</i>								
Bow thruster room (s): bow thruster room (s)	102-113	85.0	42.1	1.032	-146.4	83.22	11.75	3.72	-4460.7	
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
NO.1 WB TK(S): NO.1 WB TK(S)	90-102	95.0	95.0	1.032	-73.3	74.17	11.74	1.44	0.0	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
boat hoistable(s): boat hoistable(s)	82-95	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
carb container(s): carb container(s)	80-95	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
fw+chil (s): fw+chil (s)	90-102	85.0	40.5	1.032	-193.9	74.01	11.78	4.88	-8737.0	
lashing (s): lashing (s)	107-113	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
lift(s): lift(s)	95-99	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs stem (s): stairs stem (s)	99-113	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					-413.6	77.30	11.76	3.86	-13197.6	
Total Buoyancy					5139.5	46.40	0.31	3.36	172096.7	

Drafts at equilibrium angle

Draft at LCF	5.764 metres
Draft aft at marks	4.775 metres
Draft fwd at marks	6.895 metres
Draft at AP	4.775 metres
Draft at FP	6.895 metres
Mean draft at midships	5.835 metres

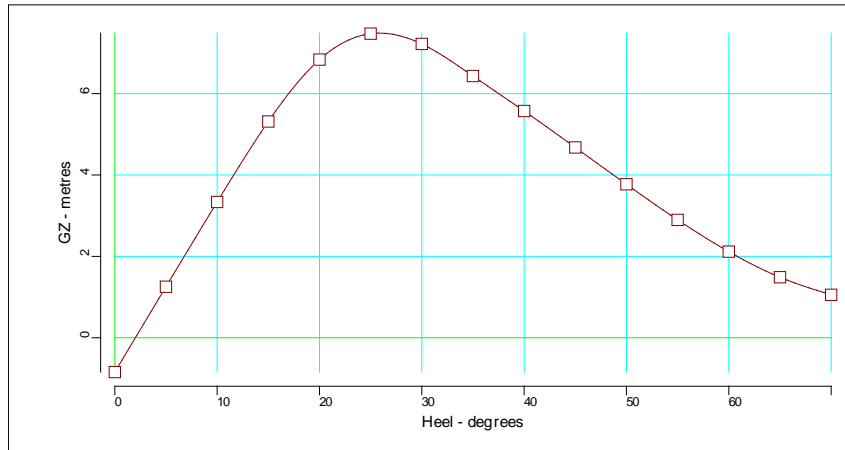
Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel to starboard	2.01 degrees
Trim by the bow	2.120 metres
KG	12.236 metres
FSC	0.023 metres
KGf	12.259 metres
GMt	23.812 metres
BMt	33.485 metres
BMI	103.833 metres
Waterplane area	1167.97 sq.metres
LCG	46.198 metres
LCB	46.404 metres
TCB	0.310 metres
LCF	42.918 metres
TCF	-0.135 metres
TPC	12.053 tonnes/cm

Density of water	1.0320	tonnes/cu.m
MTC	58.182	tonnes-m/cm
Shell thickness	0.000	mm

2-3 (S)

FULL LOAD DEPARTURE: 2-3 (S)



Righting Lever (GZ) Curve

Heel to Stbd (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-0.8451	24.5920	1.900	5.807	24.19[0]
5.00	1.2534	24.5740	2.494	5.824	22.65[0]
10.00	3.3363	24.3964	3.145	5.697	21.04[0]
15.00	5.3138	22.1711	3.781	5.435	19.35[0]
20.00	6.8366	15.3781	4.736	5.005	17.65[0]
25.00	7.4735	4.5201	5.930	4.270	16.07[0]
30.00	7.2204	-6.8064	6.741	3.219	14.66[0]
35.00	6.4313	-9.5792	6.844	1.963	13.33[0]
40.00	5.5723	-9.9805	6.720	0.638	11.96[0]
45.00	4.6762	-10.0925	6.403	-0.735	10.54[0]
50.00	3.7708	-9.7825	5.945	-2.134	9.07[0]
55.00	2.8965	-8.8654	5.394	-3.538	7.55[0]
60.00	2.1158	-7.0047	4.730	-4.943	6.00[0]
65.00	1.4865	-4.8093	4.000	-6.348	4.44[0]
70.00	1.0555	-2.0645	3.260	-7.746	2.88[0]

2-3 (S)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual	Critical
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		Value	Value
1	Range of positive GZ to be > 15 degrees	67.992	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	2.040	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.517	0.100
4	GM at least 0.05m in equilibrium position after flooding	23.812	0.050
5	Range of positive GZ to be > 7 degrees	67.992	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.517	0.050

Condition complies with the regulations

2-3 (S)

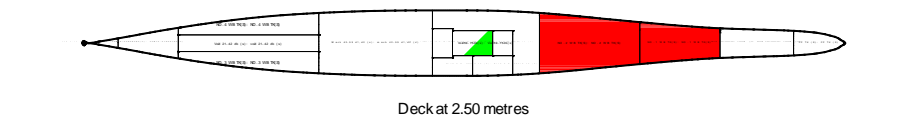
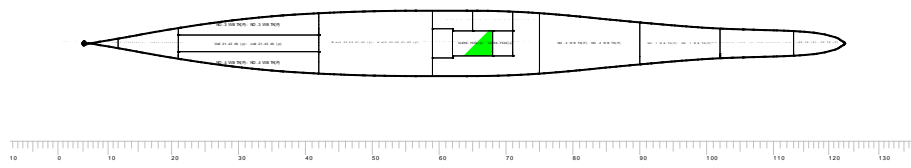
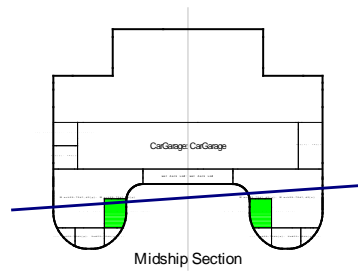
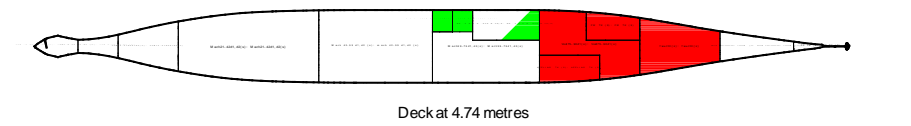
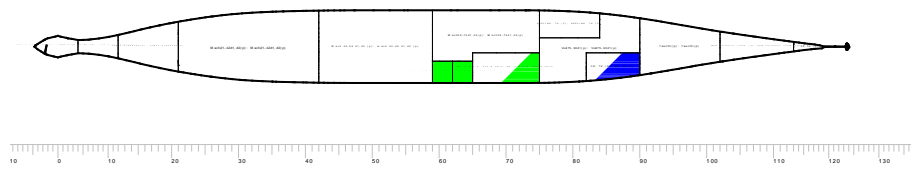
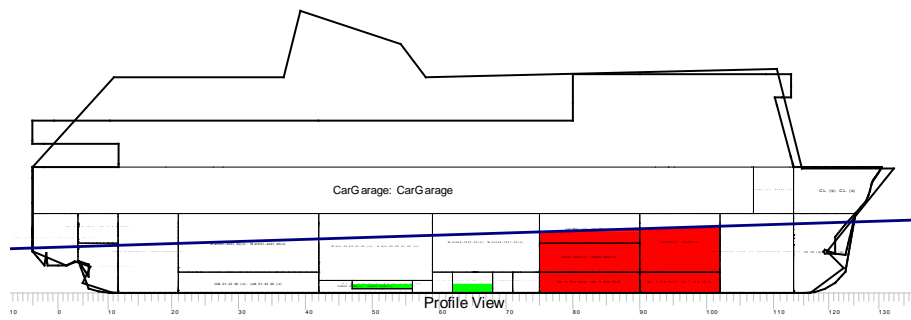
Immersion Particulars

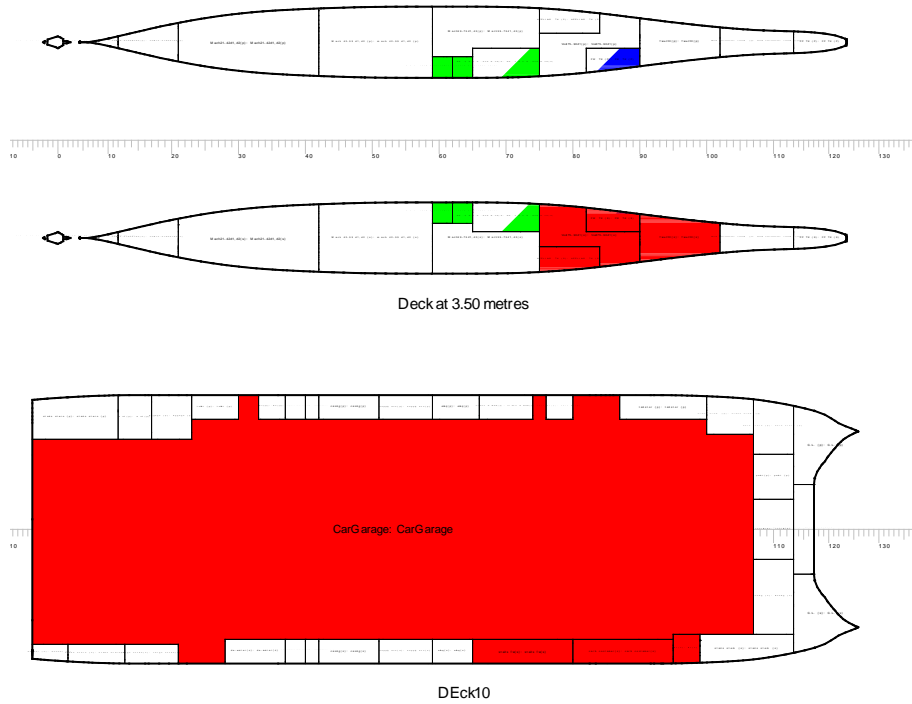
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	23.596	Not immersed
1	45.860	-16.100	30.000	24.724	Not immersed

3-4 (S)





Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

3-4 (S)

3-4 (S)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					6004.7	49.49	2.23	3.69	194223.7	
<i>Damaged</i>			<i>% perm</i>							
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
FW TK (S): FW TK (S)	82-90	95.0	42.7	1.032	-27.5	66.30	9.36	4.79	0.0	
HEELING TK (S): HEELING TK (S)	75-84	95.0	95.0	1.032	-71.3	61.11	14.29	4.35	0.0	
NO.1 WB TK(S): NO.1	90-102	95.0	95.0	1.032	-73.3	74.17	11.74	1.44	0.0	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
WB TK(S)										
NO.2 WB TK(S): NO.2 WB TK(S)	75-90	95.0	95.0	1.032	-126.2	63.26	11.74	1.46	0.0	
Void75-90d1(s): Void75-90d1(s)	75-90	95.0	95.0	1.032	-174.4	63.23	11.47	4.32	0.0	
Workshops(s): Workshops(s)	75-90	85.0	40.9	1.032	-61.6	63.78	14.38	6.87	-7853.2	
boat hoistable(s): boat hoistable(s)	82-95	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
carb container(s): carb container(s)	80-95	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
corridor (s): corridor (s)	75-90	95.0	40.9	1.032	-31.9	63.85	11.71	6.77	-3023.4	
fw+chil (s): fw+chil (s)	90-102	85.0	53.6	1.032	-257.0	74.06	11.76	5.50	-10391.9	
lift(s): lift(s)	95-99	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
spare+store (s): spare+store (s)	75-86	60.0	17.0	1.032	-25.4	62.20	9.02	6.67	-1827.0	
stairs fw(s): stairs fw(s)	65-80	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs hoistable mid: stairs hoistable middle(s)	73-82	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
wc (s): wc(s)	86-90	95.0	30.8	1.032	-16.5	68.00	9.03	6.78	-1080.5	
Total Damaged					-865.2	67.42	11.88	4.42	-24176.0	
Total Buoyancy					5139.5	46.48	0.61	3.56	170047.7	

Drafts at equilibrium angle

Draft at LCF	6.093 metres
Draft aft at marks	4.679 metres
Draft fwd at marks	7.616 metres
Draft at AP	4.679 metres
Draft at FP	7.616 metres
Mean draft at midships	6.147 metres

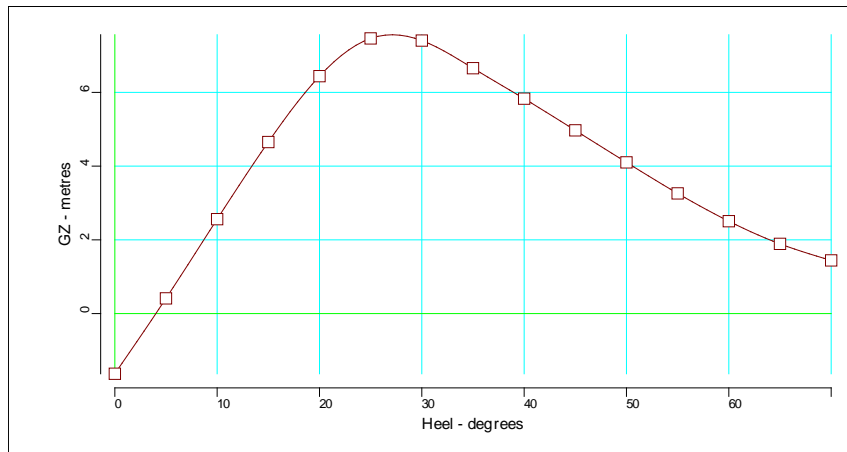
Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel to starboard	4.02 degrees
Trim by the bow	2.937 metres
KG	12.236 metres
FSC	0.023 metres

Density of water	1.0320	tonnes/cu.m
KGf	12.259	metres
GMt	23.833	metres
BMt	33.087	metres
BMI	122.900	metres
Waterplane area	1171.47	sq.metres
LCG	46.198	metres
LCB	46.476	metres
TCB	0.610	metres
LCF	44.352	metres
TCF	0.160	metres
TPC	12.090	tonnes/cm
MTC	68.866	tonnes-m/cm
Shell thickness	0.000	mm

3-4 (S)

FULL LOAD DEPARTURE: 3-4 (S)



Righting Lever (GZ) Curve

Heel to Stbd (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-1.6333	23.3743	2.467	6.070	23.92[0]
5.00	0.4119	24.5751	3.017	6.124	22.34[0]
10.00	2.5612	25.1223	3.365	5.994	20.74[0]
15.00	4.6531	23.2014	3.696	5.731	19.06[0]
20.00	6.4396	18.1650	4.246	5.334	17.33[0]
25.00	7.4637	7.7445	5.083	4.661	15.69[0]
30.00	7.4054	-6.2024	5.771	3.622	14.27[0]
35.00	6.6552	-9.1826	5.865	2.351	12.96[0]

Heel to Stbd (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
40.00	5.8294	-9.6400	5.781	1.008	11.60[0]
45.00	4.9691	-9.7667	5.547	-0.386	10.20[0]
50.00	4.1013	-9.5211	5.192	-1.805	8.74[0]
55.00	3.2593	-8.6752	4.727	-3.237	7.25[0]
60.00	2.5052	-6.9051	4.138	-4.679	5.73[0]
65.00	1.8902	-4.9258	3.462	-6.127	4.22[0]
70.00	1.4414	-2.5291	2.743	-7.566	2.70[0]

3-4 (S)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	65.976	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	1.813	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.592	0.100
4	GM at least 0.05m in equilibrium position after flooding	23.833	0.050
5	Range of positive GZ to be > 7 degrees	65.976	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.592	0.050

Condition complies with the regulations

3-4 (S)

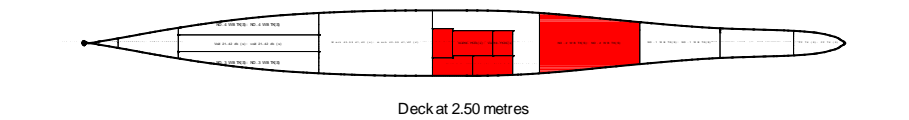
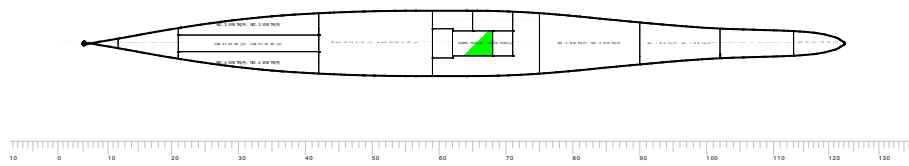
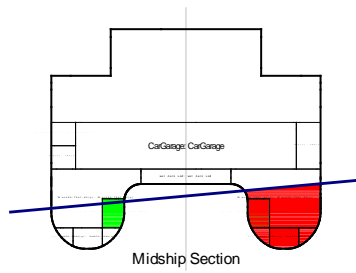
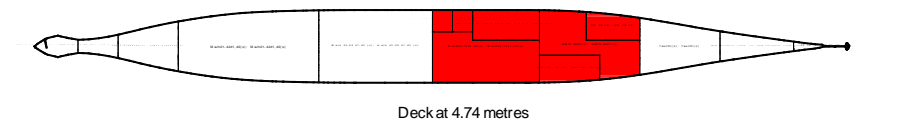
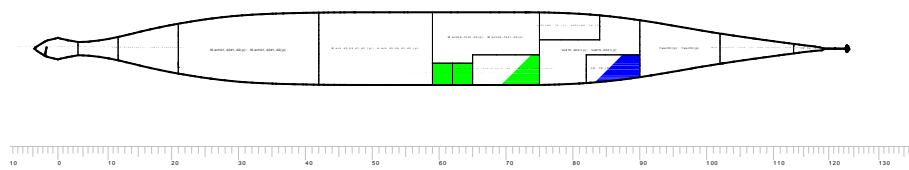
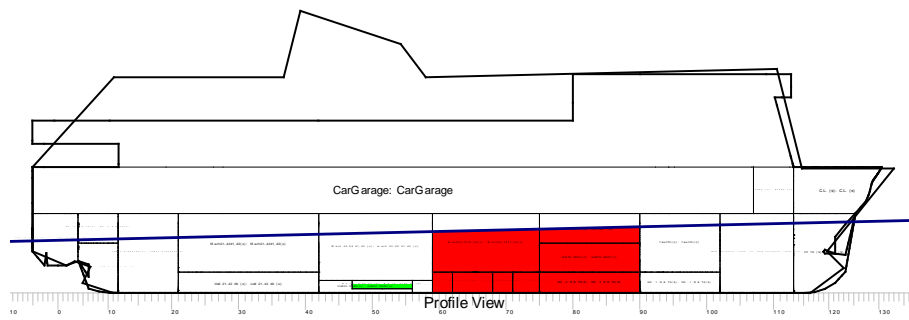
Immersion Particulars

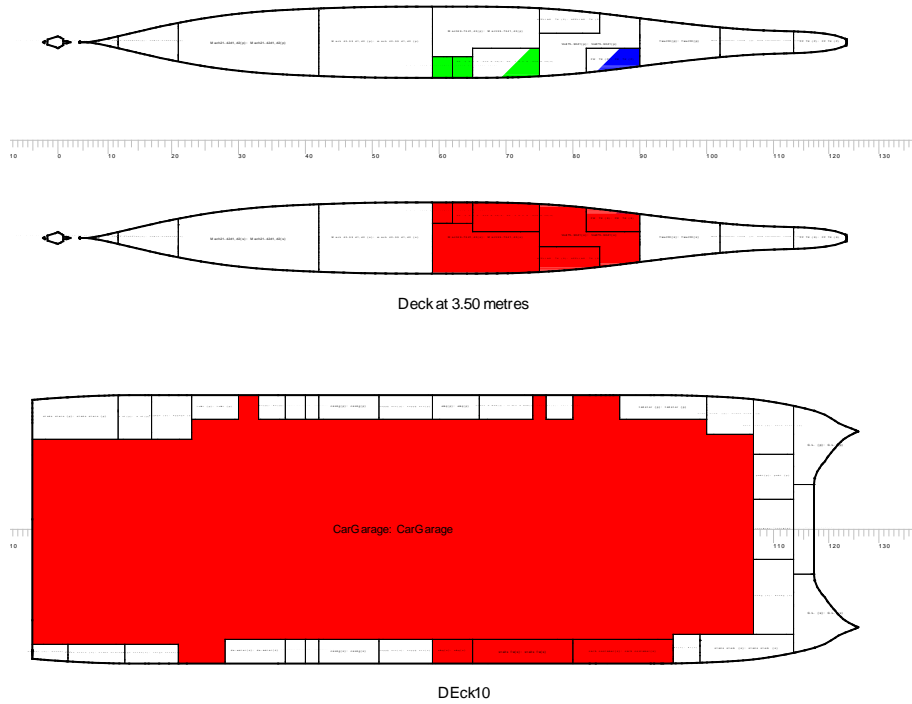
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	22.668	Not immersed
1	45.860	-16.100	30.000	24.927	Not immersed

4-5 (S)





Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

4-5 (S)

4-5 (S)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					6295.3	48.37	2.84	3.83	199299.2	
<i>Damaged</i>			<i>% perm</i>							
BILGE W DRAIN TK (S): BILGE W DRAIN TK (S)	65-71	95.0	95.0	1.032	-15.6	51.97	14.13	1.65	0.0	
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
FW TK (S): FW TK (S)	82-90	95.0	42.7	1.032	-27.5	66.30	9.36	4.79	0.0	
H.F.O.SERV.TK(S):	62-65	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
H.F.O.SERV.TK(S)										
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	95.0	0.0	1.032	-0.0	46.00	8.00	4.58	0.0	
HEELING TK (S): HEELING TK (S)	75-84	95.0	95.0	1.032	-71.3	61.11	14.29	4.35	0.0	
HFO OVFL TK (S): HFO OVFL TK (S)	59-62	95.0	95.0	1.032	-19.5	46.00	11.75	1.29	0.0	
Mach59-75d1,d2(s): Mach59-75d1,d2(s)	59-75	85.0	51.7	1.032	-375.8	50.99	12.57	5.28	-14882.5	
NO.1 H.F.O.STOR.TK(S): NO.1 H.F.O.STOR.TK(S)	62-68	95.0	55.1	1.032	-19.7	49.60	11.74	1.26	0.0	
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	95.0	61.7	1.032	-61.4	53.60	9.20	4.44	0.0	
NO.2 WB TK(S): NO.2 WB TK(S)	75-90	95.0	95.0	1.032	-126.2	63.26	11.74	1.46	0.0	
SEWAGE TK (S): SEWAGE TK (S)	68-71	95.0	95.0	1.032	-16.9	53.20	11.74	1.28	0.0	
Void59-75db(s): Void59-75db(s)	59-75	95.0	95.0	1.032	-85.9	52.28	11.31	1.56	0.0	
Void75-90d1(s): Void75-90d1(s)	75-90	95.0	95.0	1.032	-174.4	63.23	11.47	4.32	0.0	
Workshops(s): Workshops(s)	75-90	85.0	49.1	1.032	-74.1	63.70	14.38	7.04	-7854.3	
boat hoistable(s): boat hoistable(s)	82-95	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
carb container(s): carb container(s)	80-95	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
corridor (s): corridor (s)	75-90	95.0	48.6	1.032	-37.9	63.75	11.71	6.92	-3018.3	
eleq(s): eleq(s)	59-65	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
grease(s): grease(s)	65-73	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
spare+store (s): spare+store (s)	75-86	60.0	20.6	1.032	-30.7	62.14	8.99	6.79	-1869.4	
stairs fw(s): stairs fw(s)	65-80	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs hoistable mid: stairs hoistable middle(s)	73-82	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
wc (s): wc(s)	86-90	95.0	35.4	1.032	-19.0	68.00	9.01	6.88	-1102.1	
Total Damaged					- 57.15 1155.9	11.98	4.32	-28726.6		

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S
Total Buoyancy					5139.4	46.40	0.78	3.73	170572.6	M

Drafts at equilibrium angle

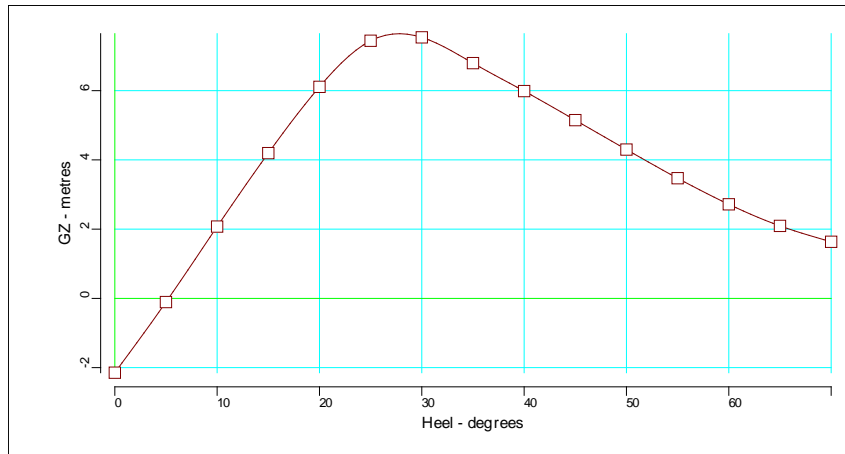
Draft at LCF	6.301 metres
Draft aft at marks	5.259 metres
Draft fwd at marks	7.413 metres
Draft at AP	5.259 metres
Draft at FP	7.413 metres
Mean draft at midships	6.336 metres

Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel to starboard	5.25 degrees
Trim by the bow	2.154 metres
KG	12.236 metres
FSC	0.023 metres
KGf	12.259 metres
GMt	24.610 metres
BMt	33.189 metres
BMI	141.991 metres
Waterplane area	1177.10 sq.metres
LCG	46.198 metres
LCB	46.398 metres
TCB	0.781 metres
LCF	44.535 metres
TCF	0.346 metres
TPC	12.148 tonnes/cm
MTC	79.563 tonnes-m/cm
Shell thickness	0.000 mm

4-5 (S)

FULL LOAD DEPARTURE: 4-5 (S)



Righting Lever (GZ) Curve

Heel to Stbd (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-2.1473	22.6489	1.802	6.227	23.77[0]
5.00	-0.1073	24.5395	2.133	6.309	22.17[0]
10.00	2.0727	25.1364	2.309	6.202	20.54[0]
15.00	4.1948	24.0607	2.587	5.967	18.83[0]
20.00	6.1096	20.1982	3.006	5.637	17.04[0]
25.00	7.4408	10.5872	3.583	5.096	15.27[0]
30.00	7.5384	-6.8867	4.185	4.110	13.80[0]
35.00	6.7942	-8.9601	4.253	2.822	12.50[0]
40.00	5.9873	-9.4514	4.205	1.453	11.17[0]
45.00	5.1475	-9.6378	4.050	0.029	9.79[0]
50.00	4.2978	-9.5079	3.794	-1.430	8.37[0]
55.00	3.4696	-8.8561	3.452	-2.909	6.93[0]
60.00	2.7170	-7.3271	2.995	-4.400	5.46[0]
65.00	2.0932	-5.4604	2.414	-5.896	3.98[0]
70.00	1.6353	-3.3194	1.844	-7.386	2.52[0]

4-5 (S)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	64.750	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	1.674	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.682	0.100
4	GM at least 0.05m in equilibrium position after flooding	24.610	0.050
5	Range of positive GZ to be > 7 degrees	64.750	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.682	0.050

Condition complies with the regulations

4-5 (S)

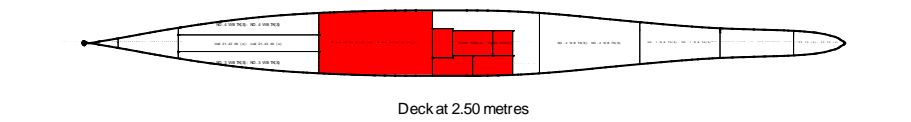
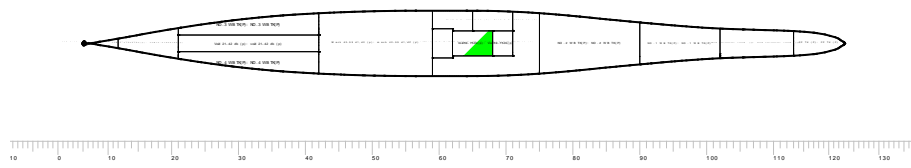
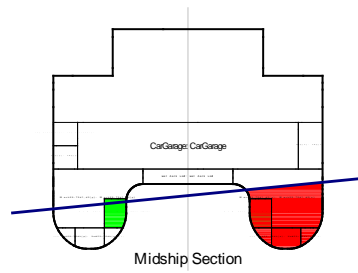
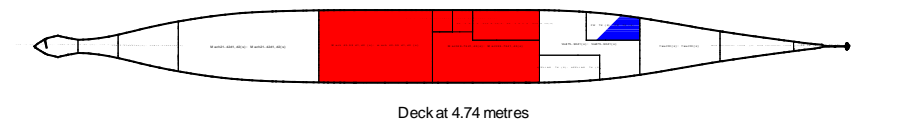
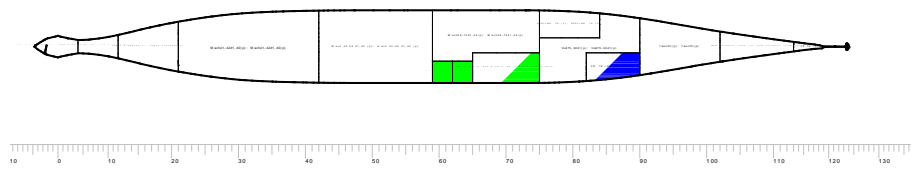
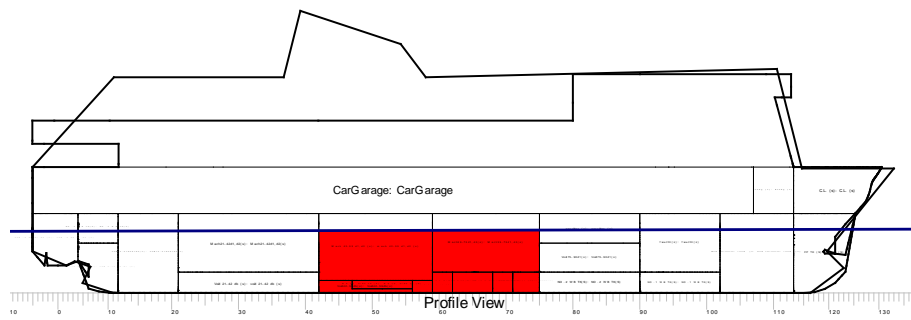
Immersion Particulars

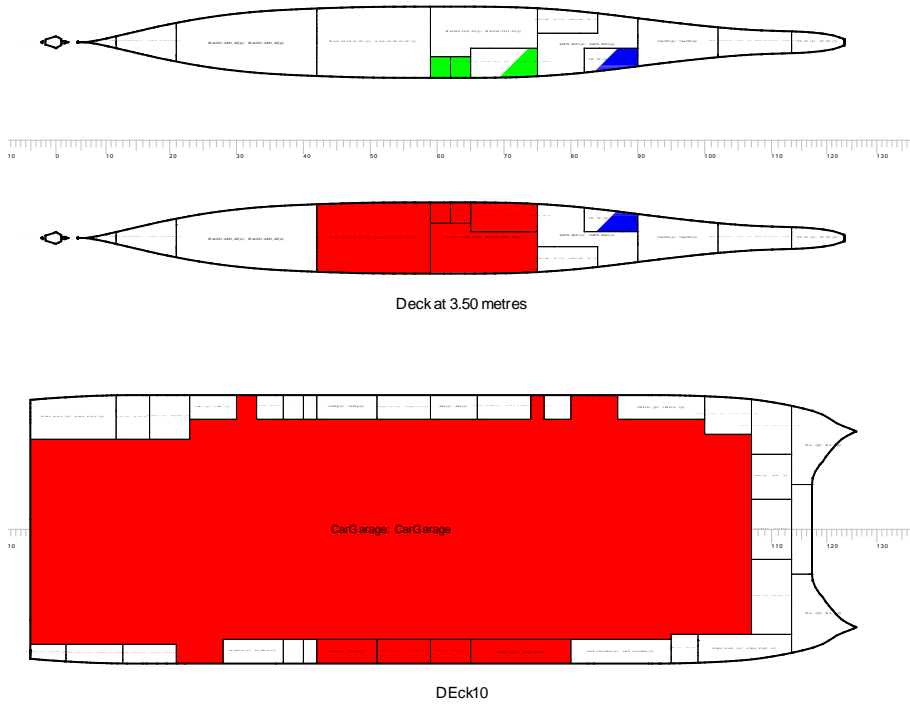
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	22.090	Not immersed
1	45.860	-16.100	30.000	25.035	Not immersed

5-6 (S)





Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

5-6 (S)

5-6 (S)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					6406.5	45.83	3.03	3.87	202033.2	
<i>Damaged</i>		<i>% perm</i>								
BILGE W DRAIN TK (S): BILGE W DRAIN TK (S)	65-71	95.0	95.0	1.032	-15.6	51.97	14.13	1.65	0.0	
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
DIRTY OIL TK(S): DIRTY OIL TK(S)	56-59	95.0	95.0	1.032	-8.5	43.60	11.75	0.76	0.0	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
H.F.O.SERV.TK(S): H.F.O.SERV.TK(S)	62-65	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
H.F.O.SETT.TK(S): H.F.O.SETT.TK(S)	59-62	95.0	0.0	1.032	-0.0	46.00	8.00	4.58	0.0	
HFO OVFL TK (S): HFO OVFL TK (S)	59-62	95.0	95.0	1.032	-19.5	46.00	11.75	1.29	0.0	
LO SLUDGE TK(S): LO SLUDGE TK(S)	42-47	95.0	95.0	1.032	-5.1	33.26	13.63	1.03	0.0	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	0.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Mach 42-59 d1,d2 (s): mach 42-59 d1,d2 (s)	42-59	85.0	59.1	1.032	-588.2	38.04	11.83	4.63	-16676.3	
Mach59-75d1,d2(s): Mach59-75d1,d2(s)	59-75	85.0	51.9	1.032	-377.2	50.91	12.58	5.29	-15718.7	
NO.1 H.F.O.STOR.TK(S): NO.1 H.F.O.STOR.TK(S)	62-68	95.0	55.1	1.032	-19.7	49.60	11.74	1.26	0.0	
NO.2 H.F.O.STOR.TK(S): NO.2 H.F.O.STOR.TK(S)	65-75	95.0	61.7	1.032	-61.4	53.60	9.20	4.44	0.0	
SEWAGE TK (S): SEWAGE TK (S)	68-71	95.0	95.0	1.032	-16.9	53.20	11.74	1.28	0.0	
Void42-59db(s): Void42-59db(s)	42-59	95.0	95.0	1.032	-69.1	37.42	11.74	0.87	0.0	
Void59-75db(s): Void59-75db(s)	59-75	95.0	95.0	1.032	-85.9	52.28	11.31	1.56	0.0	
casing(s): casing(s)	42-51	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
eleq(s): eleq(s)	59-65	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
grease(s): grease(s)	65-73	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs fw(s): stairs fw(s)	65-80	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
supply etc(s): supply etc(s)	51-59	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					- 44.25 1267.1	11.92	4.18	-32395.1		
Total Buoyancy					5139.4	46.22	0.84	3.79	169638.1	

Drafts at equilibrium angle

Draft at LCF	6.372 metres
Draft aft at marks	6.267 metres
Draft fwd at marks	6.490 metres
Draft at AP	6.267 metres

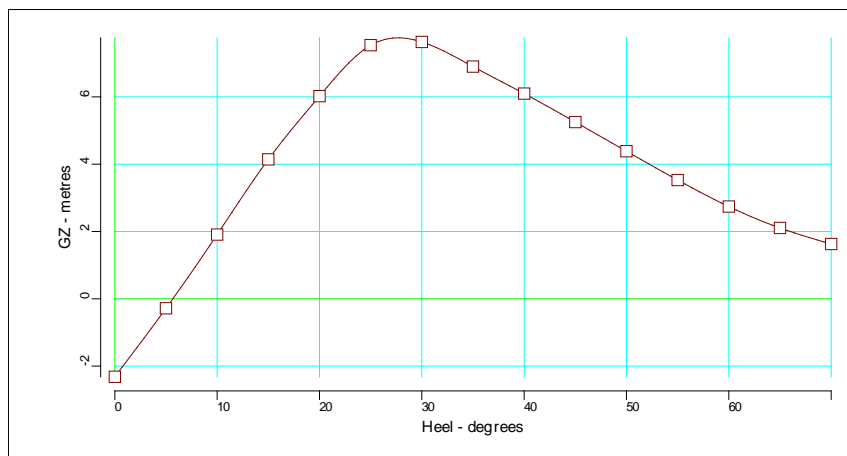
Draft at LCF	6.372	metres
Draft at FP	6.490	metres
Mean draft at midships	6.379	metres

Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel to starboard	5.66	degrees
Trim by the bow	0.223	metres
KG	12.236	metres
FSC	0.023	metres
KGf	12.259	metres
GMt	24.489	metres
BMt	33.007	metres
BMI	144.683	metres
Waterplane area	1154.29	sq.metres
LCG	46.198	metres
LCB	46.219	metres
TCB	0.837	metres
LCF	42.968	metres
TCF	0.049	metres
TPC	11.912	tonnes/cm
MTC	81.072	tonnes-m/cm
Shell thickness	0.000	mm

5-6 (S)

FULL LOAD DEPARTURE: 5-6 (S)



Righting Lever (GZ) Curve

Heel to Stbd	GZ	Slope	Trim	WLrad	Freeboard
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(deg)	(m)	(m/rad)	(m)	(m)	(m)
0.00	-2.3185	22.4265	0.145	6.246	23.75[0]
5.00	-0.2829	24.2582	0.214	6.346	22.14[0]
10.00	1.9085	25.9452	0.279	6.283	20.47[0]
15.00	4.1432	23.9991	0.442	6.072	18.74[0]
20.00	6.0218	19.5141	0.534	5.821	16.86[0]
25.00	7.5365	14.0609	0.462	5.452	14.93[0]
30.00	7.6335	-7.7901	0.349	4.526	13.40[0]
35.00	6.9013	-8.8824	0.210	3.230	12.11[0]
40.00	6.0984	-9.4741	0.099	1.830	10.80[0]
45.00	5.2520	-9.8445	0.005	0.362	9.47[0]
50.00	4.3848	-9.9412	-0.077	-1.149	8.10[0]
55.00	3.5293	-9.5555	-0.150	-2.682	6.70[0]
60.00	2.7411	-8.3507	-0.183	-4.224	5.28[0]
65.00	2.1048	-6.1380	-0.198	-5.769	3.86[0]
70.00	1.6276	-4.6792	-0.332	-7.275	2.41[0]

5-6 (S)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	64.335	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	1.647	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.823	0.100
4	GM at least 0.05m in equilibrium position after flooding	24.489	0.050
5	Range of positive GZ to be > 7 degrees	64.335	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.823	0.050

Condition complies with the regulations

5-6 (S)

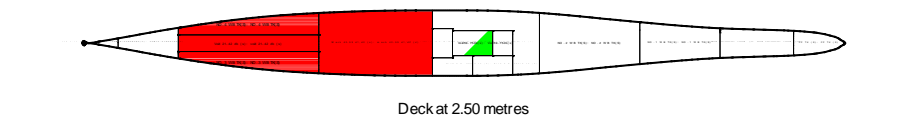
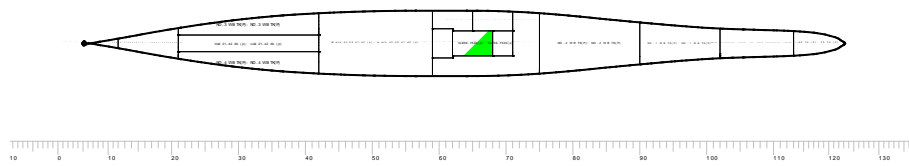
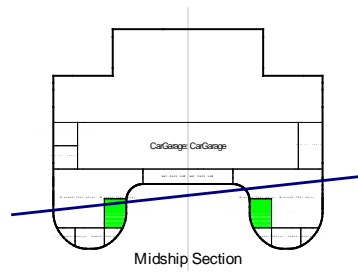
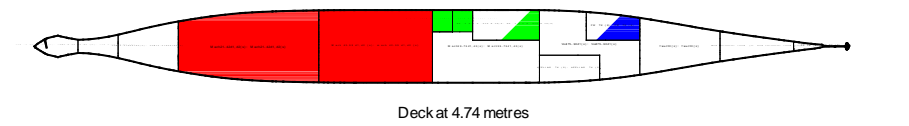
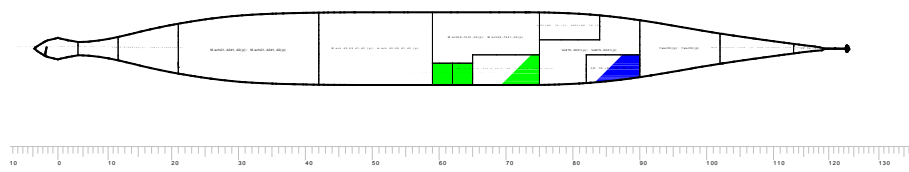
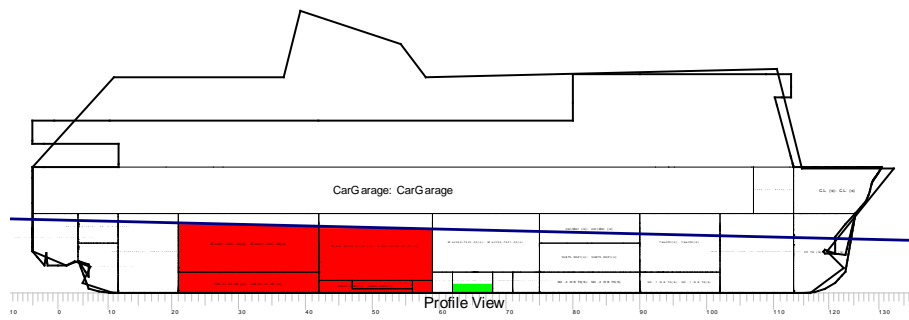
Immersion Particulars

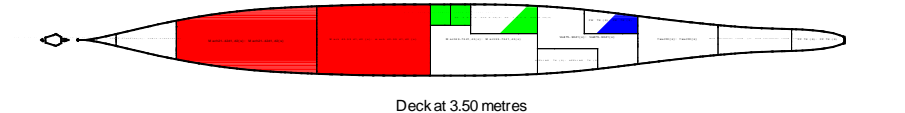
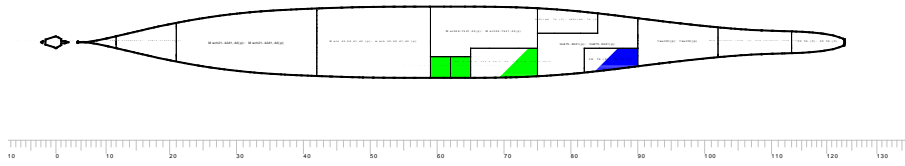
State of Openings = X-ray: Normal condition

Deck Edge

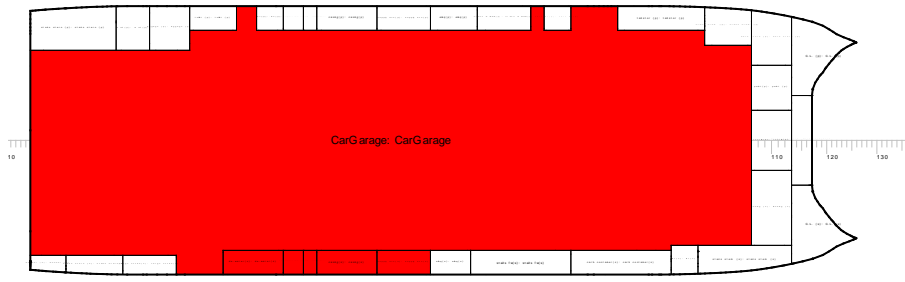
Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	21.926	Not immersed
1	45.860	-16.100	30.000	25.105	Not immersed

6-7 (S)





Deck at 3.50 metres



DEck10

Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

6-7 (S)

6-7 (S)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					6618.6	42.47	3.35	4.03	211821.3	
<i>Damaged</i>		<i>% perm</i>								
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
DIRTY OIL TK(S): DIRTY OIL TK(S)	56-59	95.0	95.0	1.032	-8.5	43.60	11.75	0.76	0.0	
DO SERV TK(S): DO SERV TK(S)	34-39	95.0	17.1	1.032	-6.8	26.76	7.85	7.03	-726.8	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
LO SLUDGE TK(S): LO SLUDGE TK(S)	42-47	95.0	95.0	1.032	-5.1	33.26	13.63	1.03	0.0	
ME LO CIRC TK (S): ME LO CIRC TK (S)	47-56	0.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Mach 42-59 d1,d2 (s): mach 42-59 d1,d2 (s)	42-59	85.0	62.9	1.032	-626.4	37.97	11.82	4.82	-17503.5	
Mach21-42d1,d2(s): Mach21-42d1,d2(s)	21-42	85.0	65.1	1.032	-647.1	22.96	11.89	5.55	-21466.4	
NO.3 WB TK(S): NO.3 WB TK(S)	21-42	0.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
NO.4 WB TK(S): NO.4 WB TK(S)	21-42	95.0	95.0	1.032	-39.2	24.59	9.99	1.70	0.0	
Void 21-42 db (s): void 21-42 db (s)	21-42	95.0	95.0	1.032	-76.7	22.94	11.75	1.31	0.0	
Void42-59db(s): Void42-59db(s)	42-59	95.0	95.0	1.032	-69.1	37.42	11.74	0.87	0.0	
ae room exh(s): ae room exh(s)	37-40	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
casing(s): casing(s)	42-51	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
de-water(s): de-water(s)	28-37	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
supply aft(s): supply aft(s)	40-42	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
supply etc(s): supply etc(s)	51-59	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					- 30.20 1479.1	11.78	4.66	-39696.7		
Total Buoyancy					5139.5	46.00	0.92	3.85	172124.6	

Drafts at equilibrium angle

Draft at LCF	6.511 metres
Draft aft at marks	7.497 metres
Draft fwd at marks	5.294 metres
Draft at AP	7.497 metres
Draft at FP	5.294 metres
Mean draft at midships	6.395 metres

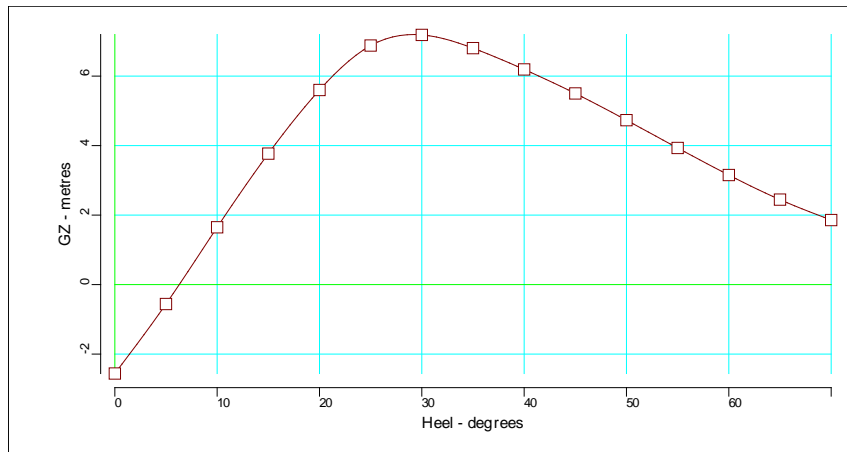
Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
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Density of water	1.0320	tonnes/cu.m
Heel to starboard	6.29	degrees
Trim by the stern	2.203	metres
KG	12.236	metres
FSC	0.023	metres
KGf	12.259	metres
GMt	25.163	metres
BMt	33.491	metres
BMI	167.210	metres
Waterplane area	1225.99	sq.metres
LCG	46.198	metres
LCB	45.997	metres
TCB	0.922	metres
LCF	40.886	metres
TCF	-0.075	metres
TPC	12.652	tonnes/cm
MTC	93.695	tonnes-m/cm
Shell thickness	0.000	mm

6-7 (S)

FULL LOAD DEPARTURE: 6-7 (S)



Righting Lever (GZ) Curve

Heel to Stbd (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-2.5606	22.0581	-1.928	6.232	23.76[0]
5.00	-0.5595	24.4665	-2.189	6.349	22.13[0]
10.00	1.6491	25.3205	-2.169	6.324	20.42[0]
15.00	3.7679	23.4790	-2.415	6.198	18.60[0]

Heel to Stbd (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
20.00	5.5992	19.4026	-2.897	5.989	16.68[0]
25.00	6.8790	11.6249	-3.746	5.620	14.75[0]
30.00	7.1856	2.4209	-5.240	4.920	12.98[0]
35.00	6.8041	-6.5588	-5.842	3.726	11.58[0]
40.00	6.1912	-7.4485	-5.888	2.330	10.28[0]
45.00	5.5004	-8.2608	-5.704	0.833	8.98[0]
50.00	4.7308	-8.7616	-5.341	-0.733	7.67[0]
55.00	3.9308	-8.6806	-4.873	-2.326	6.34[0]
60.00	3.1526	-8.1246	-4.362	-3.911	4.97[0]
65.00	2.4445	-7.1098	-3.870	-5.458	3.55[0]
70.00	1.8571	-5.4170	-3.479	-6.946	2.08[0]

6-7 (S)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	63.710	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	1.497	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.197	0.100
4	GM at least 0.05m in equilibrium position after flooding	25.163	0.050
5	Range of positive GZ to be > 7 degrees	63.710	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.197	0.050

Condition complies with the regulations

6-7 (S)

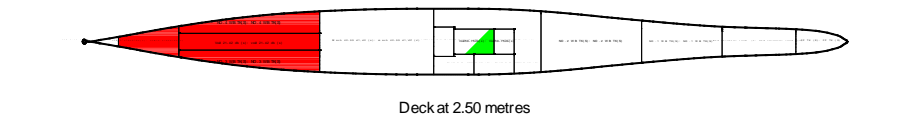
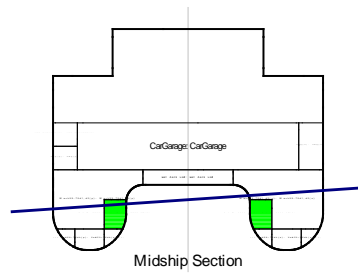
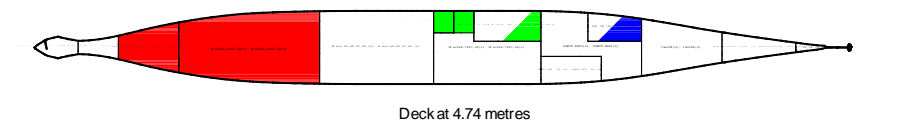
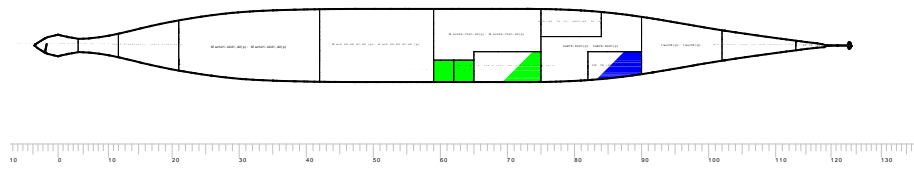
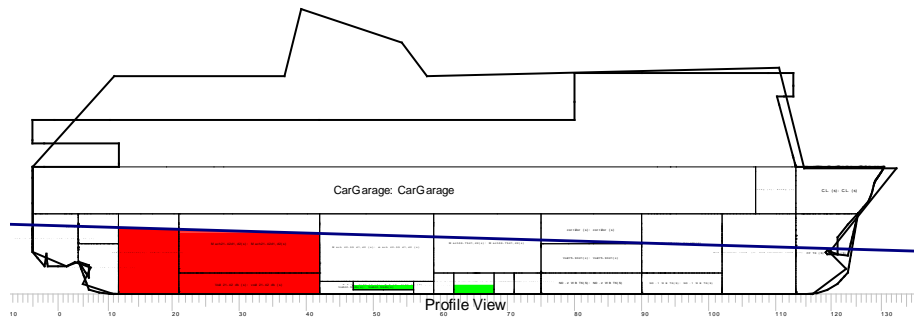
Immersion Particulars

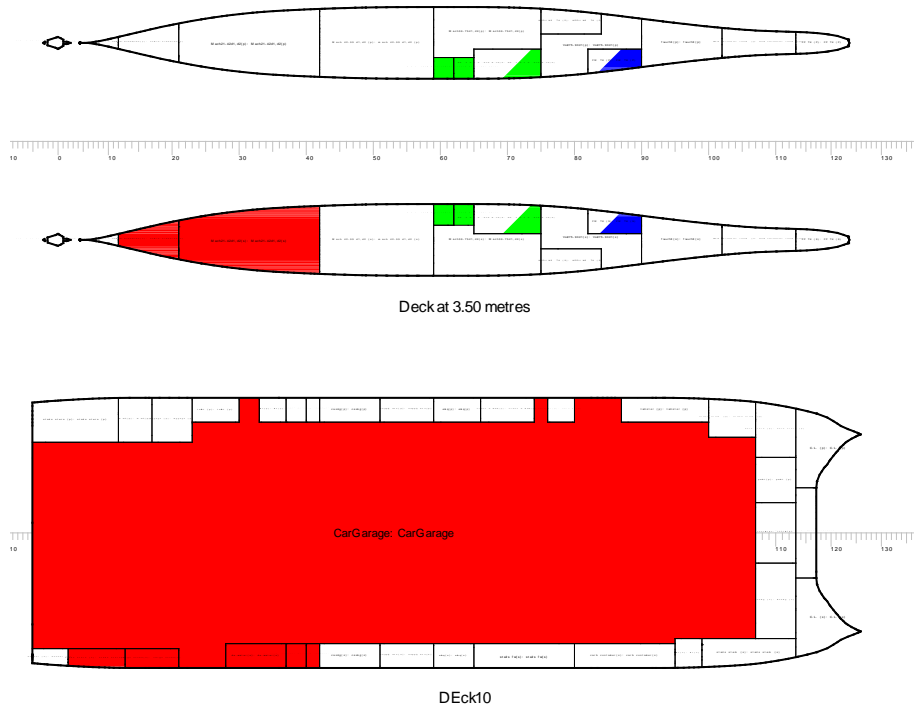
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	21.705	Not immersed
1	45.860	-16.100	30.000	25.232	Not immersed

7-8 (S)





Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

7-8 (S)

7-8 (S)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					6019.7	42.17	2.23	3.69	202691.2	
<i>Damaged</i>			<i>% perm</i>							
A/E LO STOR TK (S): A/E LO STOR TK (S)	0-0	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
DO SERV TK(S): DO SERV TK(S)	34-39	95.0	3.6	1.032	-1.4	26.60	8.05	5.58	-621.7	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Mach21-42d1,d2(s): Mach21-42d1,d2(s)	21-42	85.0	55.2	1.032	-548.9	22.99	11.87	5.13	-21607.9	
NO.3 WB TK(S): NO.3 WB TK(S)	21-42	0.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
NO.4 WB TK(S): NO.4 WB TK(S)	21-42	95.0	95.0	1.032	-39.2	24.59	9.99	1.70	0.0	
UP BILGE W TK (S): UP BILGE W TK (S)	16-21	95.0	47.7	1.032	-19.0	12.44	14.30	7.04	-2774.0	
Void 21-42 db (s): void 21-42 db (s)	21-42	95.0	95.0	1.032	-76.7	22.94	11.75	1.31	0.0	
Void12-21dbd1d2(s): Void12-21dbd1d2(s)	12-21	95.0	63.2	1.032	-195.0	10.92	11.64	4.89	-6788.8	
ae room exh(s): ae room exh(s)	37-40	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
cargo office(s): cargo office(s)	13-21	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
de-water(s): de- water(s)	28-37	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs hoistable st2: stairs hoistable stern(s)	6-21	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs stern (s): stairs stern(s)	2-13	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
supply aft(s): supply aft(s)	40-42	85.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					-880.3	20.16	11.77	4.63	-31792.4	
Total Buoyancy					5139.5	45.94	0.59	3.52	170898.9	

Drafts at equilibrium angle

Draft at LCF	6.067	metres
Draft aft at marks	7.346	metres
Draft fwd at marks	4.627	metres
Draft at AP	7.346	metres
Draft at FP	4.627	metres
Mean draft at midships	5.986	metres

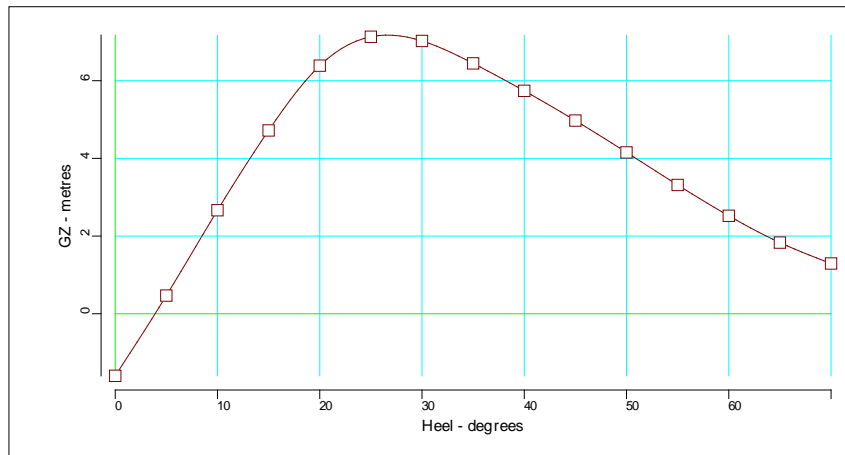
Hydrostatics at equilibrium angle

Density of water	1.0320	tonnes/cu.m
Heel to starboard	3.91	degrees
Trim by the stern	2.719	metres

Density of water	1.0320	tonnes/cu.m
KG	12.236	metres
FSC	0.023	metres
KGf	12.259	metres
GMt	24.094	metres
BMt	33.252	metres
BMI	133.865	metres
Waterplane area	1180.98	sq.metres
LCG	46.198	metres
LCB	45.939	metres
TCB	0.592	metres
LCF	42.971	metres
TCF	-0.680	metres
TPC	12.188	tonnes/cm
MTC	75.010	tonnes-m/cm
Shell thickness	0.000	mm

7-8 (S)

FULL LOAD DEPARTURE: 7-8 (S)



Righting Lever (GZ) Curve

Heel to Stbd (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
0.00	-1.5997	23.3985	-2.330	5.899	24.09[0]
5.00	0.4666	24.9140	-2.767	5.977	22.49[0]
10.00	2.6644	24.6790	-2.891	5.936	20.80[0]
15.00	4.7191	22.7191	-3.267	5.784	19.01[0]
20.00	6.3874	16.8624	-4.024	5.496	17.17[0]
25.00	7.1327	6.8673	-5.502	4.951	15.40[0]

Heel to Stbd (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLrad (m)	Freeboard (m)
30.00	7.0244	-2.6290	-7.104	4.071	13.81[0]
35.00	6.4467	-7.7590	-7.620	2.844	12.44[0]
40.00	5.7398	-8.3532	-7.594	1.484	11.11[0]
45.00	4.9740	-8.8079	-7.285	0.050	9.75[0]
50.00	4.1539	-8.9756	-6.753	-1.433	8.36[0]
55.00	3.3163	-8.6444	-6.076	-2.935	6.95[0]
60.00	2.5214	-7.8041	-5.368	-4.426	5.48[0]
65.00	1.8319	-6.3298	-4.719	-5.877	3.97[0]
70.00	1.2928	-4.5307	-4.122	-7.274	2.41[0]

7-8 (S)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	66.092	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	1.800	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	7.212	0.100
4	GM at least 0.05m in equilibrium position after flooding	24.094	0.050
5	Range of positive GZ to be > 7 degrees	66.092	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	7.212	0.050

Condition complies with the regulations

7-8 (S)

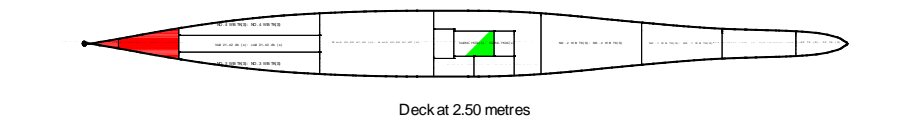
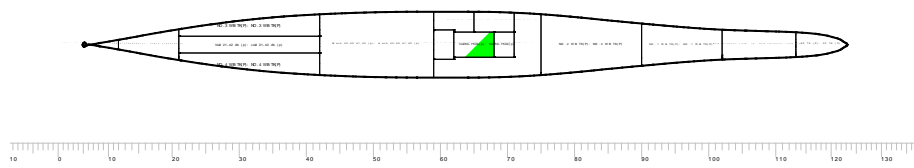
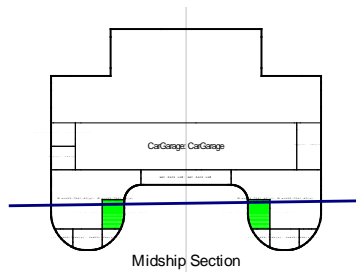
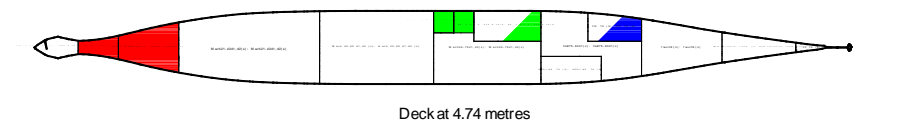
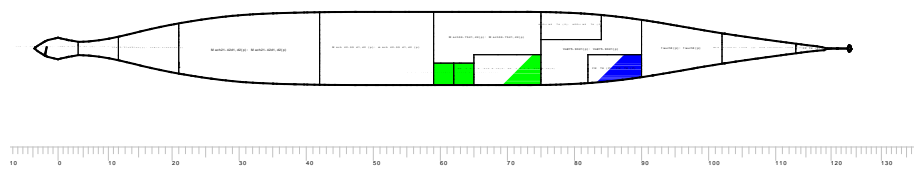
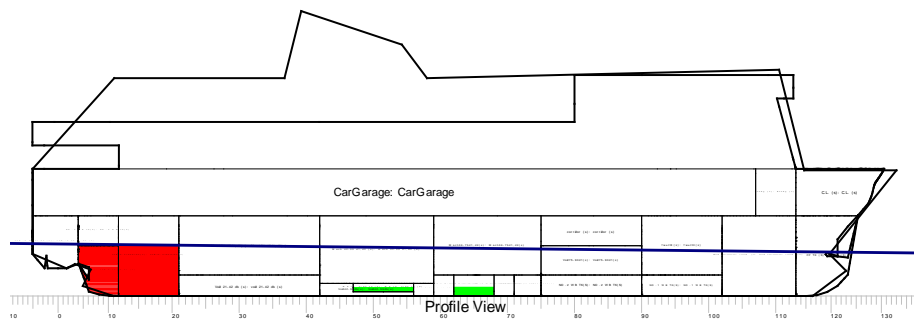
Immersion Particulars

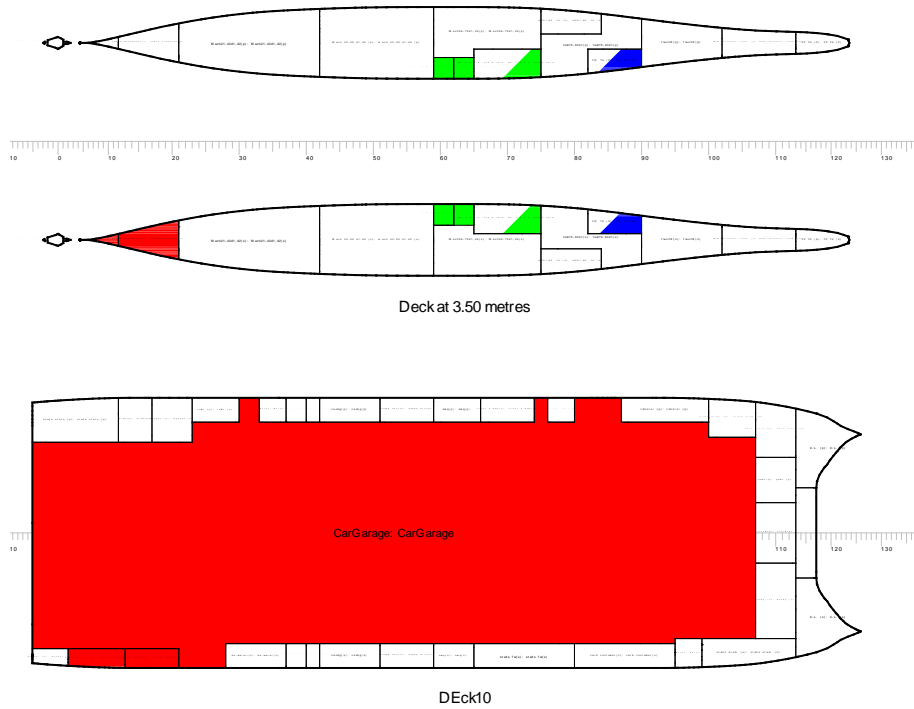
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	22.861	Not immersed
1	45.860	-16.100	30.000	25.054	Not immersed

8-9 (S)





Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

8-9 (S)

8-9 (S)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S (M)
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					5307.0	44.96	0.49	3.25	185712.8	
<i>Damaged</i>			<i>% perm</i>							
A/E LO STOR TK (S): A/E LO STOR TK (S)	0-0	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
NO.5 WB TK(S): NO.5 WB TK(S)	4-12	95.0	2.3	1.032	-3.1	4.78	11.89	6.08	-3009.4	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
UP BILGE W TK (S): UP BILGE W TK (S)	16-21	95.0	2.2	1.032	-0.9	12.38	14.09	6.06	-1726.4	
Void 4-12 db,d1 (s): void 4-12 db,d1 (s)	4-12	95.0	95.0	1.032	-33.0	5.23	11.74	4.23	0.0	
Void12-21dbd1d2(s): Void12-21dbd1d2(s)	12-21	95.0	42.3	1.032	-130.6	11.22	11.74	3.85	-4664.5	
boatswain(s): boatswain(s)	-5-6	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
cargo office(s): cargo office(s)	13-21	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs hoistable st2: stairs hoistable stern(s)	6-21	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs stern (s): stairs stern(s)	2-13	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					-167.6	9.93	11.76	3.98	-9400.3	
Total Buoyancy					5139.4	46.10	0.12	3.23	176312.6	

Drafts at equilibrium angle

Draft at LCF	5.590 metres
Draft aft at marks	6.045 metres
Draft fwd at marks	5.083 metres
Draft at AP	6.045 metres
Draft at FP	5.083 metres
Mean draft at midships	5.564 metres

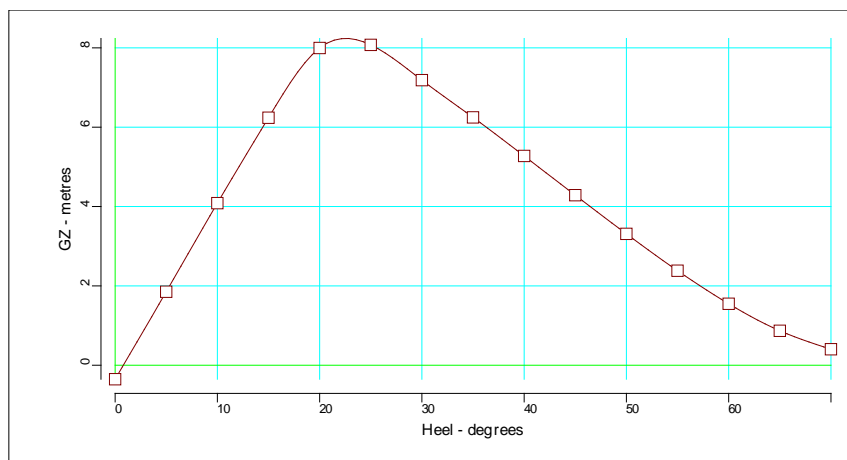
Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel to starboard	0.80 degrees
Trim by the stern	0.962 metres
KG	12.236 metres
FSC	0.023 metres
KGf	12.259 metres
GMt	25.193 metres
BMt	34.306 metres
BMI	111.293 metres
Waterplane area	1196.51 sq.metres
LCG	46.198 metres
LCB	46.104 metres

Density of water	1.0320	tonnes/cu.m
TCB	0.121	metres
LCF	43.312	metres
TCF	-0.366	metres
TPC	12.348	tonnes/cm
MTC	62.362	tonnes-m/cm
Shell thickness	0.000	mm

8-9 (S)

FULL LOAD DEPARTURE: 8-9 (S)



Righting Lever (GZ) Curve

Heel to Stbd (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLRad (m)	Freeboard (m)
0.00	-0.3530	25.2498	-0.905	5.558	24.44[0]
5.00	1.8532	25.5872	-1.152	5.551	22.93[0]
10.00	4.0860	25.4323	-1.169	5.437	21.31[0]
15.00	6.2391	23.3446	-1.078	5.168	19.64[0]
20.00	7.9979	15.2273	-1.287	4.724	17.96[0]
25.00	8.0761	-9.7906	-2.056	3.824	16.56[0]
30.00	7.1873	-10.4632	-2.283	2.584	15.34[0]
35.00	6.2487	-10.9605	-2.462	1.303	14.03[0]
40.00	5.2760	-11.2697	-2.588	-0.006	12.63[0]
45.00	4.2868	-11.3130	-2.669	-1.328	11.15[0]
50.00	3.3120	-10.9716	-2.670	-2.661	9.61[0]
55.00	2.3834	-10.1885	-2.607	-3.992	8.01[0]
60.00	1.5501	-8.6886	-2.423	-5.328	6.38[0]
65.00	0.8693	-6.4362	-2.122	-6.671	4.76[0]
70.00	0.4038	-3.4582	-1.798	-8.002	3.13[0]

8-9 (S)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual Value	Critical Value
1	Range of positive GZ to be > 15 degrees	69.198	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	2.398	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	8.310	0.100
4	GM at least 0.05m in equilibrium position after flooding	25.193	0.050
5	Range of positive GZ to be > 7 degrees	69.198	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	8.310	0.050

Condition complies with the regulations

8-9 (S)

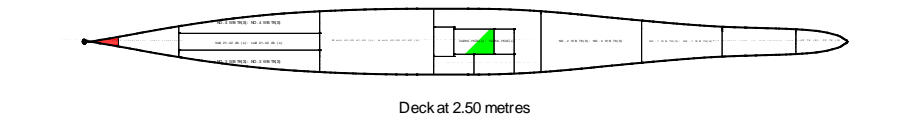
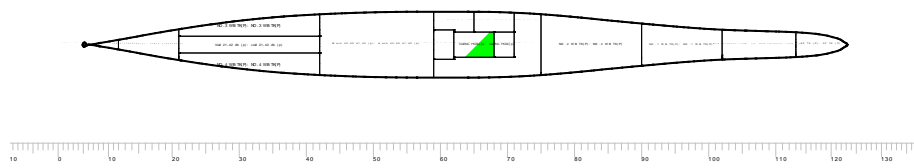
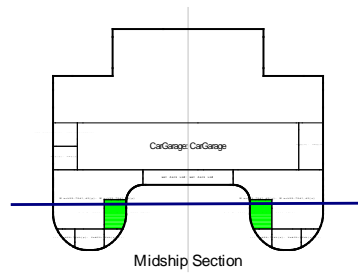
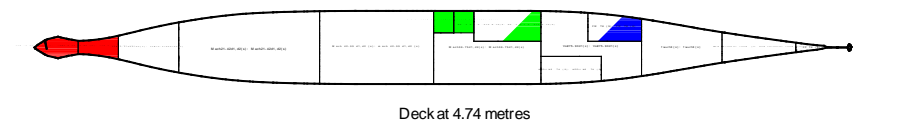
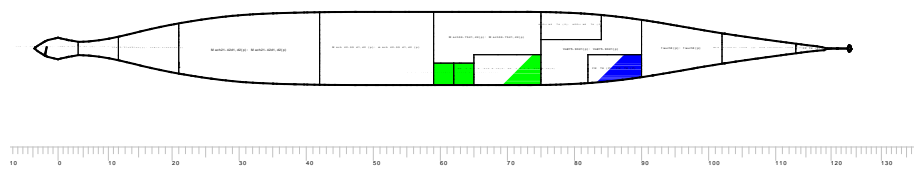
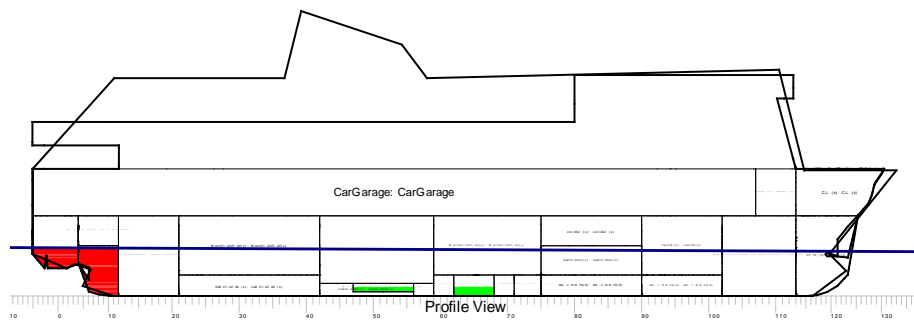
Immersion Particulars

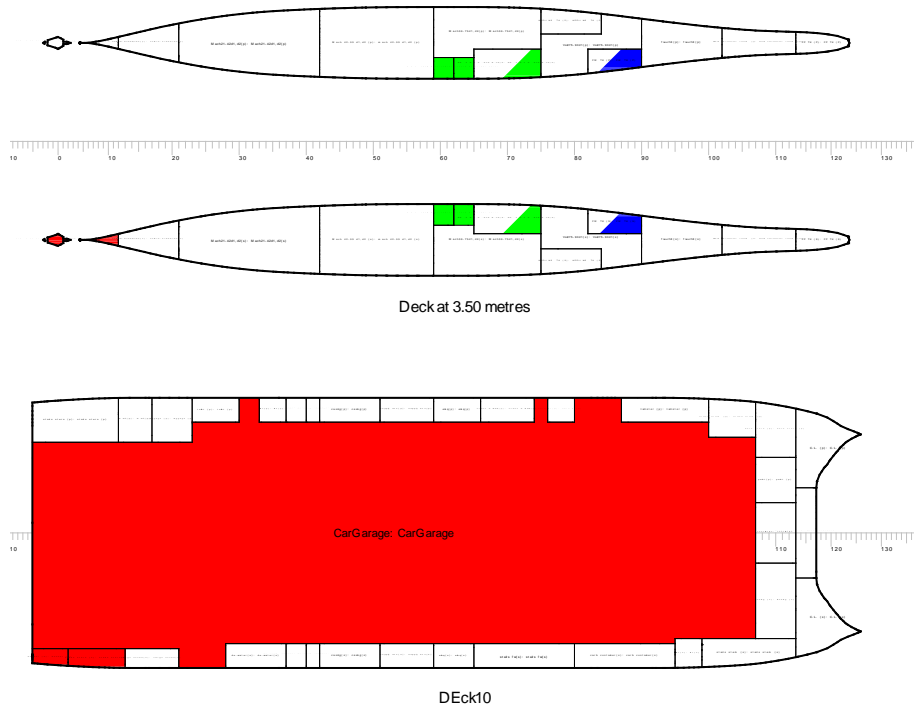
State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	24.213	Not immersed
1	45.860	-16.100	30.000	24.664	Not immersed

9-10 (S)





Key

Key	Name	Density (t/m3)
	FW	1.0000
	FO	0.9800
	DO	0.9000
	LO	0.9000
	Damage	1.0320

9-10 (S)

9-10 (S)

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S (M)
Total Displacement					5139.4	46.20	-0.00	12.24	118.1	
Buoyancy					5187.0	45.76	0.14	3.19	183087.8	
<i>Damaged</i>		<i>% perm</i>								
CarGarage: CarGarage	-5-107	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
NO.5 WB TK(S): NO.5 WB TK(S)	4-12	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Void -4 db,d1,d2 (s): void -4 db,d1,d2 (s)	-5-4	95.0	11.7	1.032	-19.4	0.01	11.74	4.91	-2293.8	

Title	Frames	Cargo	% full	SG (t/m3)	Weight (t)	LCG (m)	TCG (m)	VCG (m)	FSM (t-m)	S M
Void 4-12 db,d1 (s): void 4-12 db,d1 (s)	4-12	95.0	80.9	1.032	-28.1	5.28	11.74	3.94	-2438.9	
boatswain(s): boatswain(s)	-5-6	60.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
bunker (s): bunker (s)	-5-2	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs hoistable st2: stairs hoistable stern(s)	6-21	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
stairs stern (s): stairs stern(s)	2-13	95.0	0.0	1.032	0.0	0.00	0.00	0.00	0.0	
Total Damaged					-47.5	3.13	11.74	4.34	-4732.7	
Total Buoyancy					5139.4	46.16	0.03	3.18	178355.1	

Drafts at equilibrium angle

Draft at LCF	5.506 metres
Draft aft at marks	5.700 metres
Draft fwd at marks	5.289 metres
Draft at AP	5.700 metres
Draft at FP	5.289 metres
Mean draft at midships	5.495 metres

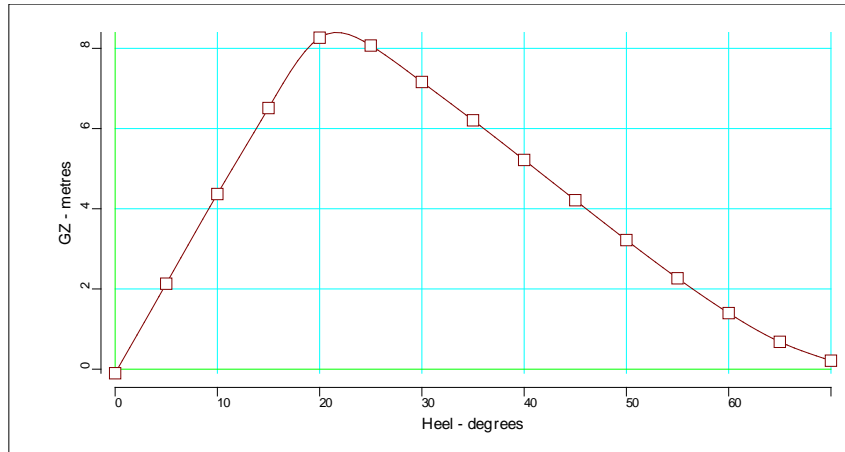
Hydrostatics at equilibrium angle

Density of water	1.0320 tonnes/cu.m
Heel to starboard	0.23 degrees
Trim by the stern	0.411 metres
KG	12.236 metres
FSC	0.023 metres
KGf	12.259 metres
GMt	25.610 metres
BMt	34.703 metres
BMI	110.542 metres
Waterplane area	1208.70 sq.metres
LCG	46.198 metres
LCB	46.158 metres
TCB	0.033 metres
LCF	43.314 metres
TCF	-0.241 metres
TPC	12.474 tonnes/cm
MTC	61.941 tonnes-m/cm

Density of water	1.0320 tonnes/cu.m
Shell thickness	0.000 mm

9-10 (S)

FULL LOAD DEPARTURE: 9-10 (S)



Righting Lever (GZ) Curve

Heel to Stbd (deg)	GZ (m)	Slope (m/rad)	Trim (m)	WLRad (m)	Freeboard (m)
0.00	-0.1019	25.6282	-0.401	5.494	24.51[0]
5.00	2.1316	25.7387	-0.547	5.463	23.02[0]
10.00	4.3675	25.3643	-0.472	5.321	21.43[0]
15.00	6.5123	23.4429	-0.330	5.028	19.78[0]
20.00	8.2668	14.5143	-0.393	4.544	18.14[0]
25.00	8.0716	-10.0793	-0.684	3.518	16.87[0]
30.00	7.1624	-10.6914	-0.807	2.259	15.67[0]
35.00	6.2064	-11.1591	-0.932	0.971	14.37[0]
40.00	5.2170	-11.4336	-1.070	-0.333	12.96[0]
45.00	4.2141	-11.4673	-1.220	-1.639	11.47[0]
50.00	3.2192	-11.2128	-1.382	-2.937	9.89[0]
55.00	2.2671	-10.5081	-1.505	-4.230	8.25[0]
60.00	1.3984	-9.2415	-1.561	-5.523	6.58[0]
65.00	0.6822	-6.9517	-1.475	-6.824	4.91[0]
70.00	0.2119	-3.3086	-1.261	-8.135	3.27[0]

9-10 (S)

1992 PASSENGER Ship Rules (Two or more comp. flooding)

#	Criterion	Actual	Critical
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		Value	Value
1	Range of positive GZ to be > 15 degrees	69.772	10.000
2	Area under GZ curve up to 27 degrees or down-flood > 0.015	2.503	0.015
3	Maximum GZ to be at least 0.10 metres within positive range	8.469	0.100
4	GM at least 0.05m in equilibrium position after flooding	25.610	0.050
5	Range of positive GZ to be > 7 degrees	69.772	7.000
6	Maximum GZ to be at least 0.05 metres within positive range	8.469	0.050

Condition complies with the regulations

9-10 (S)

Immersion Particulars

State of Openings = X-ray: Normal condition

Deck Edge

Point #	X position (m)	Y position (m)	Z position (m)	Ht. above WL (m)	Flood Angle (deg)
0	45.860	16.100	30.000	24.443	Not immersed
1	45.860	-16.100	30.000	24.571	Not immersed

HSCC (RESULTS ONLY)

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1981.259	sq.metres
Area to leeward (Area b)	0.85792	m-radians
Area to windward (Area a)	0.00461	m-radians
GZc	0.102	metres
Gust angle	1.087	degrees
Rollback angle	90.000	degrees
Steady state angle	1.087	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.67016	m-radians
Area to windward (Area a)	0.00397	m-radians
GZc	0.067	metres
Gust angle	1.008	degrees
Rollback angle	90.000	degrees
Steady state angle	1.008	degrees
Max. angle to leeward	30.000	degrees

1-2 (P)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	1.008	15.000
2	Area A2 >= 0.028 m-rad	0.999	0.028
3	Maximum GZ to be at least 0.05 m	7.829	0.050
4	Positive range of stability > 7 degrees	69.141	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1964.561	sq.metres
Area to leeward (Area b)	0.81403	m-radians
Area to windward (Area a)	0.01871	m-radians
GZc	0.101	metres
Gust angle	2.265	degrees
Rollback angle	90.000	degrees
Steady state angle	2.265	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.41263	m-radians
Area to windward (Area a)	0.01737	m-radians
GZc	0.067	metres
Gust angle	2.182	degrees
Rollback angle	90.000	degrees
Steady state angle	2.182	degrees
Max. angle to leeward	30.000	degrees

2-3 (P)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	2.182	15.000
2	Area A2 >= 0.028 m-rad	0.999	0.028
3	Maximum GZ to be at least 0.05 m	7.579	0.050
4	Positive range of stability > 7 degrees	67.979	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1939.051	sq.metres
Area to leeward (Area b)	0.83826	m-radians
Area to windward (Area a)	0.06581	m-radians
GZc	0.100	metres
Gust angle	4.304	degrees
Rollback angle	90.000	degrees
Steady state angle	4.304	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.21039	m-radians
Area to windward (Area a)	0.06329	m-radians
GZc	0.067	metres
Gust angle	4.223	degrees
Rollback angle	90.000	degrees
Steady state angle	4.223	degrees
Max. angle to leeward	30.000	degrees

3-4 (P)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	4.223	15.000
2	Area A2 >= 0.028 m-rad	1.000	0.028
3	Maximum GZ to be at least 0.05 m	7.739	0.050
4	Positive range of stability > 7 degrees	65.937	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1925.631	sq.metres
Area to leeward (Area b)	0.83471	m-radians
Area to windward (Area a)	0.10725	m-radians
GZc	0.100	metres
Gust angle	5.452	degrees
Rollback angle	90.000	degrees
Steady state angle	5.452	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.04449	m-radians
Area to windward (Area a)	0.10410	m-radians
GZc	0.067	metres
Gust angle	5.374	degrees
Rollback angle	90.000	degrees
Steady state angle	5.374	degrees
Max. angle to leeward	30.000	degrees

4-5 (P)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	5.374	15.000
2	Area A2 >= 0.028 m-rad	0.999	0.028
3	Maximum GZ to be at least 0.05 m	7.665	0.050
4	Positive range of stability > 7 degrees	64.782	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1924.649	sq.metres
Area to leeward (Area b)	0.85639	m-radians
Area to windward (Area a)	0.12186	m-radians
GZc	0.100	metres
Gust angle	5.804	degrees
Rollback angle	90.000	degrees
Steady state angle	5.804	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.05794	m-radians
Area to windward (Area a)	0.11850	m-radians
GZc	0.067	metres
Gust angle	5.726	degrees
Rollback angle	90.000	degrees
Steady state angle	5.726	degrees
Max. angle to leeward	30.000	degrees

5-6 (P)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	5.726	15.000
2	Area A2 >= 0.028 m-rad	1.000	0.028
3	Maximum GZ to be at least 0.05 m	7.906	0.050
4	Positive range of stability > 7 degrees	64.430	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1924.404	sq.metres
Area to leeward (Area b)	0.84285	m-radians
Area to windward (Area a)	0.15376	m-radians
GZc	0.100	metres
Gust angle	6.500	degrees
Rollback angle	90.000	degrees
Steady state angle	6.500	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	1.85954	m-radians
Area to windward (Area a)	0.15000	m-radians
GZc	0.067	metres
Gust angle	6.424	degrees
Rollback angle	90.000	degrees
Steady state angle	6.424	degrees
Max. angle to leeward	30.000	degrees

6-7 (P)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	6.424	15.000
2	Area A2 >= 0.028 m-rad	0.998	0.028
3	Maximum GZ to be at least 0.05 m	7.179	0.050
4	Positive range of stability > 7 degrees	63.729	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1955.931	sq.metres
Area to leeward (Area b)	0.86144	m-radians
Area to windward (Area a)	0.06188	m-radians
GZc	0.101	metres
Gust angle	4.154	degrees
Rollback angle	90.000	degrees
Steady state angle	4.154	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.24046	m-radians
Area to windward (Area a)	0.05942	m-radians
GZc	0.067	metres
Gust angle	4.072	degrees
Rollback angle	90.000	degrees
Steady state angle	4.072	degrees
Max. angle to leeward	30.000	degrees

7-8 (P)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	4.072	15.000
2	Area A2 >= 0.028 m-rad	1.000	0.028
3	Maximum GZ to be at least 0.05 m	7.606	0.050
4	Positive range of stability > 7 degrees	66.086	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1988.448	sq.metres
Area to leeward (Area b)	0.86820	m-radians
Area to windward (Area a)	0.00420	m-radians
GZc	0.102	metres
Gust angle	1.047	degrees
Rollback angle	90.000	degrees
Steady state angle	1.047	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.74771	m-radians
Area to windward (Area a)	0.00358	m-radians
GZc	0.067	metres
Gust angle	0.966	degrees
Rollback angle	90.000	degrees
Steady state angle	0.966	degrees
Max. angle to leeward	30.000	degrees

8-9 (P)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	0.966	15.000
2	Area A2 >= 0.028 m-rad	1.000	0.028
3	Maximum GZ to be at least 0.05 m	8.279	0.050
4	Positive range of stability > 7 degrees	69.185	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1994.617	sq.metres
Area to leeward (Area b)	0.87412	m-radians
Area to windward (Area a)	0.00086	m-radians
GZc	0.102	metres
Gust angle	0.469	degrees
Rollback angle	90.000	degrees
Steady state angle	0.469	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.85536	m-radians
Area to windward (Area a)	0.00059	m-radians
GZc	0.067	metres
Gust angle	0.389	degrees
Rollback angle	90.000	degrees
Steady state angle	0.389	degrees
Max. angle to leeward	30.000	degrees

9-10 (P)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	0.389	15.000
2	Area A2 >= 0.028 m-rad	1.000	0.028
3	Maximum GZ to be at least 0.05 m	8.464	0.050
4	Positive range of stability > 7 degrees	69.760	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1981.259	sq.metres
Area to leeward (Area b)	0.85782	m-radians
Area to windward (Area a)	0.00451	m-radians
GZc	0.102	metres
Gust angle	1.074	degrees
Rollback angle	90.000	degrees
Steady state angle	1.074	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.68270	m-radians
Area to windward (Area a)	0.00387	m-radians
GZc	0.067	metres
Gust angle	0.996	degrees
Rollback angle	90.000	degrees
Steady state angle	0.996	degrees
Max. angle to leeward	30.000	degrees

1-2 (S)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	0.996	15.000
2	Area A2 >= 0.028 m-rad	0.999	0.028
3	Maximum GZ to be at least 0.05 m	7.887	0.050
4	Positive range of stability > 7 degrees	69.153	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1964.561	sq.metres
Area to leeward (Area b)	0.80949	m-radians
Area to windward (Area a)	0.01849	m-radians
GZc	0.101	metres
Gust angle	2.251	degrees
Rollback angle	90.000	degrees
Steady state angle	2.251	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.39343	m-radians
Area to windward (Area a)	0.01715	m-radians
GZc	0.067	metres
Gust angle	2.168	degrees
Rollback angle	90.000	degrees
Steady state angle	2.168	degrees
Max. angle to leeward	30.000	degrees

2-3 (S)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	2.168	15.000
2	Area A2 >= 0.028 m-rad	0.999	0.028
3	Maximum GZ to be at least 0.05 m	7.517	0.050
4	Positive range of stability > 7 degrees	67.992	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1939.281	sq.metres
Area to leeward (Area b)	0.82846	m-radians
Area to windward (Area a)	0.06481	m-radians
GZc	0.100	metres
Gust angle	4.265	degrees
Rollback angle	90.000	degrees
Steady state angle	4.265	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.17688	m-radians
Area to windward (Area a)	0.06232	m-radians
GZc	0.067	metres
Gust angle	4.184	degrees
Rollback angle	90.000	degrees
Steady state angle	4.184	degrees
Max. angle to leeward	30.000	degrees

3-4 (S)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	4.184	15.000
2	Area A2 >= 0.028 m-rad	0.999	0.028
3	Maximum GZ to be at least 0.05 m	7.592	0.050
4	Positive range of stability > 7 degrees	65.976	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1924.317	sq.metres
Area to leeward (Area b)	0.83762	m-radians
Area to windward (Area a)	0.10917	m-radians
GZc	0.100	metres
Gust angle	5.482	degrees
Rollback angle	90.000	degrees
Steady state angle	5.482	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.04519	m-radians
Area to windward (Area a)	0.10600	m-radians
GZc	0.067	metres
Gust angle	5.405	degrees
Rollback angle	90.000	degrees
Steady state angle	5.405	degrees
Max. angle to leeward	30.000	degrees

4-5 (S)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	5.405	15.000
2	Area A2 >= 0.028 m-rad	0.999	0.028
3	Maximum GZ to be at least 0.05 m	7.682	0.050
4	Positive range of stability > 7 degrees	64.750	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1922.655	sq.metres
Area to leeward (Area b)	0.85361	m-radians
Area to windward (Area a)	0.12639	m-radians
GZc	0.100	metres
Gust angle	5.898	degrees
Rollback angle	90.000	degrees
Steady state angle	5.898	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.02584	m-radians
Area to windward (Area a)	0.12298	m-radians
GZc	0.067	metres
Gust angle	5.821	degrees
Rollback angle	90.000	degrees
Steady state angle	5.821	degrees
Max. angle to leeward	30.000	degrees

5-6 (S)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	5.821	15.000
2	Area A2 >= 0.028 m-rad	0.999	0.028
3	Maximum GZ to be at least 0.05 m	7.823	0.050
4	Positive range of stability > 7 degrees	64.335	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1923.841	sq.metres
Area to leeward (Area b)	0.83048	m-radians
Area to windward (Area a)	0.15516	m-radians
GZc	0.100	metres
Gust angle	6.517	degrees
Rollback angle	90.000	degrees
Steady state angle	6.517	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	1.84363	m-radians
Area to windward (Area a)	0.15139	m-radians
GZc	0.067	metres
Gust angle	6.442	degrees
Rollback angle	90.000	degrees
Steady state angle	6.442	degrees
Max. angle to leeward	30.000	degrees

6-7 (S)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	6.442	15.000
2	Area A2 >= 0.028 m-rad	0.997	0.028
3	Maximum GZ to be at least 0.05 m	7.197	0.050
4	Positive range of stability > 7 degrees	63.710	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1955.748	sq.metres
Area to leeward (Area b)	0.83310	m-radians
Area to windward (Area a)	0.06192	m-radians
GZc	0.101	metres
Gust angle	4.147	degrees
Rollback angle	90.000	degrees
Steady state angle	4.147	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.14271	m-radians
Area to windward (Area a)	0.05946	m-radians
GZc	0.067	metres
Gust angle	4.066	degrees
Rollback angle	90.000	degrees
Steady state angle	4.066	degrees
Max. angle to leeward	30.000	degrees

7-8 (S)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	4.066	15.000
2	Area A2 >= 0.028 m-rad	0.999	0.028
3	Maximum GZ to be at least 0.05 m	7.212	0.050
4	Positive range of stability > 7 degrees	66.092	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1988.448	sq.metres
Area to leeward (Area b)	0.86827	m-radians
Area to windward (Area a)	0.00410	m-radians
GZc	0.102	metres
Gust angle	1.034	degrees
Rollback angle	90.000	degrees
Steady state angle	1.034	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.75497	m-radians
Area to windward (Area a)	0.00349	m-radians
GZc	0.067	metres
Gust angle	0.954	degrees
Rollback angle	90.000	degrees
Steady state angle	0.954	degrees
Max. angle to leeward	30.000	degrees

8-9 (S)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	0.954	15.000
2	Area A2 >= 0.028 m-rad	1.000	0.028
3	Maximum GZ to be at least 0.05 m	8.310	0.050
4	Positive range of stability > 7 degrees	69.198	7.000

Condition complies with the regulations

HSC Code combined heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	1994.617	sq.metres
Area to leeward (Area b)	0.87414	m-radians
Area to windward (Area a)	0.00081	m-radians
GZc	0.102	metres
Gust angle	0.457	degrees
Rollback angle	90.000	degrees
Steady state angle	0.457	degrees
Max. angle to leeward	70.000	degrees

HSC Code wind heeling lever

Property	Value	Units
Length WL	94.472	metres
Profile area above WL	2101.484	sq.metres
Area to leeward (Area b)	2.85807	m-radians
Area to windward (Area a)	0.00055	m-radians
GZc	0.067	metres
Gust angle	0.377	degrees
Rollback angle	90.000	degrees
Steady state angle	0.377	degrees
Max. angle to leeward	30.000	degrees

9-10 (S)

High Speed Craft (HSC) Code damaged

#	Criterion	Actual Value	Critical Value
1	Angle of heel due to beam winds <= 15 degrees	0.377	15.000
2	Area A2 >= 0.028 m-rad	1.000	0.028
3	Maximum GZ to be at least 0.05 m	8.469	0.050
4	Positive range of stability > 7 degrees	69.772	7.000

Condition complies with the regulations