CONTENTS

1. Instruction

(1) This booklet has been prepared for the master of the ship in accordance with the requirements of Regulation 10, Chapter II, Annex I of "International conference on Load Lines, 1966 " to enable him to arrange for loading and ballasting of his ship with a veiw to maintaining strength of hull structure and ship's stability under various ship's conditions in service.

(2) The freeboard of this ship is to be assigned complying with "TYPE B" of "International conference on Load Lines, 1966" on the condition that still water bending moment and shearing force in any loading conditions should not exceed the following values.

Location (Frame No.)	Shear force (Ton)		Bending Moment (Ton-M)	
	Unrestricted	Sheltered	Sagging	Hogging
29	3046	3304	0	65000
44	2730	3146		
55	2527	3044		
57	2527	3044		
84	2714	3138		
111	2870	3216		
138	2607	3085		
168	2626	3175		
183	3053	3389		
189	3277	3500		

(3) Allowable capacity for thermal expansion of fuel oil (F.O., D.O. & L.O.) is taken as 98% of full capacity.

(4) The free surface effect is considered as maximum value for all consumable tanks and not considered for fully loaded ballast tanks.

*** NOTE ***

1. Limited extreme draught for each location

Item / Location	Upper Limit	Lower Limit
Fore perpendicular	7.000 M	4.020 M
Amidship	7.000 M	4.270 M
Aft perpendicular	7.820 M	4.520 M

2. General precautions against capsizing

(a) Compliance with the stability criteria (refer to page 19) does not ensure immunity against capsizing regardless of the circumstances or absolve the master from his responsibilities. Masters should therefore exercise prudence and good seamanship having regard to the season of the year, weather forecasts and the navigational zone and should take the appropriate action as to speed and course warranted by the prevailing circumstances.

(b) Care should be taken to ensure that the cargo allocated to the ship is capable of being stowed so that compliance with the criteria can be achieved.
If necessary the amount should be limited to the extent that ballast weight may be required.

(c) Before a voyage commences care should be taken to ensure that the cargo and sizeable pieces of equipment have been properly stowed or lashed so as to minimize the possibility of both longitudinal and lateral shifting while at sea, under the effect of acceleration caused by rolling and pitching.

2. General particulars.

(1) General

Ship's name	;	
Call signal	;	
Port of registry	;	
Owner's name and address	;	Gorthons Rederi AB Stortorget 2 S-251 Helsingborg Sweden
Builder's name and address	;	Korea Shipbuilding & Engineering Corporation 29, 5-Ka, Bongrae-Dong, Youngdo-ku, Pusan, Korea

(2) Principal Dimensions.

Length O.A.	;	166.00 M
Length B.P.	;	157.20 M
Breadth (Mld.)	;	22.60 M
Depth to top deck (Mld.)	;	18.45 M
Depth to upper deck (Mld.)	;	13.15 M
Depth to main deck (Mld.)	;	7.25 M
Summer load draft (Mld.)	;	abt. 6.98 M
Block coefficient at summer draft	;	0.7166

(3) Deadweight at summer draft

Displacement	;	18279.3 Tons
Light weight	;	7350 Tons (Assumed)
Deadweight	;	10929.3 Tons

(4) Tonnage (International)

Gross tonnage	;	Tonnes
Net tonnage	;	Tonnes

3. D A T A FOR L O A D I N G C A L C U L A T I O N

SHIP NO. : SNA - 1035
DWT. 9,700 MT RO-RO VESSEL

SHIP'S NAME :

K O R E A S H I P B U I L D I N G & E N G I N E E R I N G C O P O R A T I O N

D A T A FOR L O A D I N G C A L C U L A T I O N

SHIP NO. 1035 DWT. 9,700 MT RO-RO VESSEL
KOREA SHIPBUILDING & ENGINEERING CORPORATION

(1) A B B R E V I A T I O N

SYMBOL	UNIT	D E S C R I P T I O N
DRAUGHT EXTREME	M	DRAUGHT ABOVE BOTTOM OF KEEL
DRAUGHT REP	M	DRAUGHT ABOVE BASE LINE
DISP MLD	(M)3	VOLUME MOULDED
DISPL TOTAL	TON	DISPLACEMENT INCLUDING ALL APPENDAGES IN SEA WATER(S.G = 1.025)
V C B	M	VERTICAL CENTER OF BUOYANCY ABOVE BASE LINE
V C G / K G	M	VERTICAL CENTER OF GRAVITY ABOVE BASE LINE
L C B	M	LONGITUDINAL CENTER OF BUOYANCY FROM MIDSHIP
L C G	M	LONGITUDINAL CENTER OF GRAVITY FROM MIDSHIP
L C F	M	LONGITUDINAL CENTER OF FLOATATION FROM MIDSHIP
KMT	M	TRANSVERCE METACENTER ABOVE BASE LINE
TPM	TON/M	INCREASE IN DISPLACEMENT PER ONE METER IMMERSION
MCT	TON-M/M	MOMENT TO CHANGE ONE METER TRIM
KY / KN	M	RIGHTING ARM ABOUT BASE LINE
G M	M	METERCENTRIC HEIGHT ABOVE CENTER OF GRAVITY
K GO	M	K G CORRECTED FOR THE FREE SURFACE EFFECTS OF LIQUID IN TANKS
G GO	M	FREE SURFACE EFFECTS OF LIQUID IN TANKS
GO M/GMT	M	G M CORRECTED FOR THE FREE SURFACE EFFECTS OF LIQUID IN TANKS
G Z	M	RIGHTING ARM ABOUT VERTICAL CENTER OF GRAVITY(K GO)
I	(M)4	FREE SURFACE MOMENT OF INERTIA
I/D	%	PROPELLER IMMERSION IN PRECENTAGE

* NOTE;

1. THE POSITIVE SIGN MEANS FORWARD DIRECTION FROM MIDSHIP AND UPWARD DIRECTION ABOVE BASE LINE.
2. TRIM IS MEASURED OVER LENGTH BETWEEN PERPENDICULARS, TRIM BY STERN IS POSITIVE.

D A T A FOR L O A D I N G C A L C U L A T I O N

SHIP NO. 1035 DWT. 9,700 MT RO-RO VESSEL
KOREA SHIPBUILDING & ENGINEERING CORPORATION

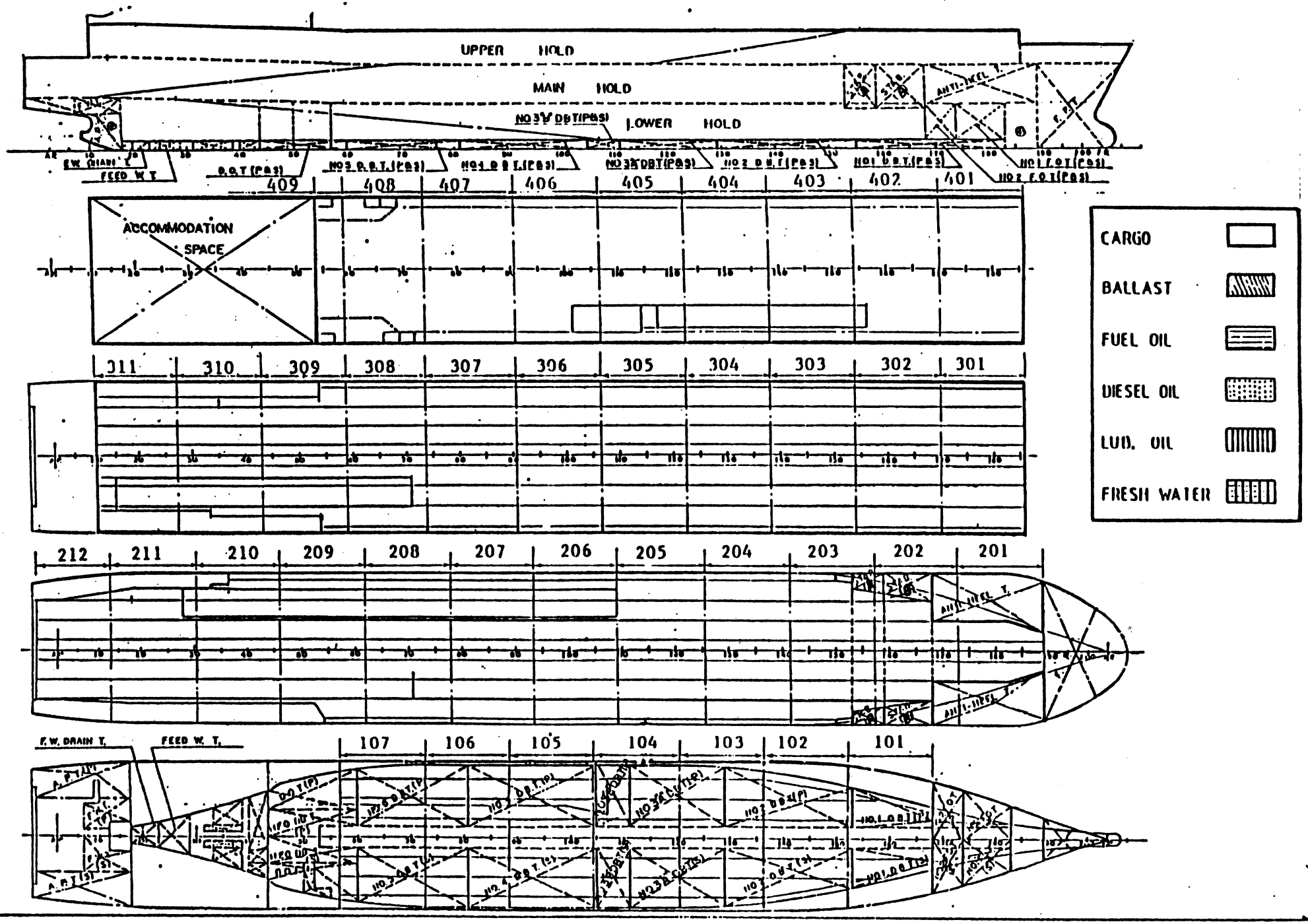
(2) F R A M E D I S T A N C E

FRAME NO.	DISTANCE FROM A P	DISTANCE FROM MIDSHIP	FRAME NO.	DISTANCE FROM A P	DISTANCE FROM MIDSHIP	FRAME NO.	DISTANCE FROM A P	DISTANCE FROM MIDSHIP
-10	-6.000	-84.600	15	9.000	-69.600	40	28.400	-50.200
-9	-5.400	-84.000	16	9.600	-69.000	41	29.200	-49.400
-8	-4.800	-83.400	17	10.200	-68.400	42	30.000	-48.600
-7	-4.200	-82.800	18	10.800	-67.800	43	30.800	-47.800
-6	-3.600	-82.200	19	11.600	-67.000	44	31.600	-47.000
-5	-3.000	-81.600	20	12.400	-66.200	45	32.400	-46.200
-4	-2.400	-81.000	21	13.200	-65.400	46	33.200	-45.400
-3	-1.800	-80.400	22	14.000	-64.600	47	34.000	-44.600
-2	-1.200	-79.800	23	14.800	-63.800	48	34.800	-43.800
-1	-0.600	-79.200	24	15.600	-63.000	49	35.600	-43.000
0	0.000	-78.600	25	16.400	-62.200	50	36.400	-42.200
1	0.600	-78.000	26	17.200	-61.400	51	37.200	-41.400
2	1.200	-77.400	27	18.000	-60.600	52	38.000	-40.600
3	1.800	-76.800	28	18.800	-59.800	53	38.800	-39.800
4	2.400	-76.200	29	19.600	-59.000	54	39.600	-39.000
5	3.000	-75.600	30	20.400	-58.200	55	40.400	-38.200
6	3.600	-75.000	31	21.200	-57.400	56	41.200	-37.400
7	4.200	-74.400	32	22.000	-56.600	57	42.000	-36.600
8	4.800	-73.800	33	22.800	-55.800	58	42.800	-35.800
9	5.400	-73.200	34	23.600	-55.000	59	43.600	-35.000
10	6.000	-72.600	35	24.400	-54.200	60	44.400	-34.200
11	6.600	-72.000	36	25.200	-53.400	61	45.200	-33.400
12	7.200	-71.400	37	26.000	-52.600	62	46.000	-32.600
13	7.800	-70.800	38	26.800	-51.800	63	46.800	-31.800
14	8.400	-70.200	39	27.600	-51.000	64	47.600	-31.000

FRAME NO.	DISTANCE FROM A P	MIDSHIP	FRAME NO.	DISTANCE FROM A P	MIDSHIP	FRAME NO.	DISTANCE FROM A P	MIDSHIP
65	48.400	-30.200	100	76.400	-2.200	135	104.400	25.800
66	49.200	-29.400	101	77.200	-1.400	136	105.200	26.600
67	50.000	-28.600	102	78.000	-0.600	137	106.000	27.400
68	50.800	-27.800	103	78.800	0.200	138	106.800	28.200
69	51.600	-27.000	104	79.600	1.000	139	107.600	29.000
70	52.400	-26.200	105	80.400	1.800	140	108.400	29.800
71	53.200	-25.400	106	81.200	2.600	141	109.200	30.600
72	54.000	-24.600	107	82.000	3.400	142	110.000	31.400
73	54.800	-23.800	108	82.800	4.200	143	110.800	32.200
74	55.600	-23.000	109	83.600	5.000	144	111.600	33.000
75	56.400	-22.200	110	84.400	5.800	145	112.400	33.800
76	57.200	-21.400	111	85.200	6.600	146	113.200	34.600
77	58.000	-20.600	112	86.000	7.400	147	114.000	35.400
78	58.800	-19.800	113	86.800	8.200	148	114.800	36.200
79	59.600	-19.000	114	87.600	9.000	149	115.600	37.000
80	60.400	-18.200	115	88.400	9.800	150	116.400	37.800
81	61.200	-17.400	116	89.200	10.600	151	117.200	38.600
82	62.000	-16.600	117	90.000	11.400	152	118.000	39.400
83	62.800	-15.800	118	90.800	12.200	153	118.800	40.200
84	63.600	-15.000	119	91.600	13.000	154	119.600	41.000
85	64.400	-14.200	120	92.400	13.800	155	120.400	41.800
86	65.200	-13.400	121	93.200	14.600	156	121.200	42.600
87	66.000	-12.600	122	94.000	15.400	157	122.000	43.400
88	66.800	-11.800	123	94.800	16.200	158	122.800	44.200
89	67.600	-11.000	124	95.600	17.000	159	123.600	45.000
90	68.400	-10.200	125	96.400	17.800	160	124.400	45.800
91	69.200	-9.400	126	97.200	18.600	161	125.200	46.600
92	70.000	-8.600	127	98.000	19.400	162	126.000	47.400
93	70.800	-7.800	128	98.800	20.200	163	126.800	48.200
94	71.600	-7.000	129	99.600	21.000	164	127.600	49.000
95	72.400	-6.200	130	100.400	21.800	165	128.400	49.800
96	73.200	-5.400	131	101.200	22.600	166	129.200	50.600
97	74.000	-4.600	132	102.000	23.400	167	130.000	51.400
98	74.800	-3.800	133	102.800	24.200	168	130.800	52.200
99	75.600	-3.000	134	103.600	25.000	169	131.600	53.000

FRAME NO.	DISTANCE FROM A P	MIDSHIP
170	132.400	53.800
171	133.200	54.600
172	134.000	55.400
173	134.800	56.200
174	135.600	57.000
175	136.400	57.800
176	137.200	58.600
177	138.000	59.400
178	138.800	60.200
179	139.600	61.000
180	140.400	61.800
181	141.200	62.600
182	142.000	63.400
183	142.800	64.200
184	143.600	65.000
185	144.400	65.800
186	145.200	66.600
187	146.000	67.400
188	146.800	68.200
189	147.600	69.000
190	148.200	69.600
191	148.800	70.200
192	149.400	70.800
193	150.000	71.400
194	150.600	72.000
195	151.200	72.600
196	151.800	73.200
197	152.400	73.800
198	153.000	74.400
199	153.600	75.000
200	154.200	75.600
201	154.800	76.200
202	155.400	76.800
203	156.000	77.400
204	156.600	78.000
205	157.200	78.600
206	157.800	79.200
207	158.400	79.800
208	159.000	80.400
209	159.600	81.000
210	160.200	81.600
211	160.800	82.200
212	161.400	82.800
213	162.000	83.400
214	162.600	84.000
215	163.200	84.600

(3) PLAN SHOWING TANK ARRANGEMENT AND CARGO ZONE.



D A . . FOR . O A D I N C C A L C U L . T I C .

SHIP NO. 1035 DWT. 9,700 MT RO-RO VESSEL
KOREA SHIPBUILDING & ENGINEERING CORPORATION

(4) DEAD WEIGHT CONSTANT

I T E M S	WEIGHT (T)	K G (M)	KG-MOMENT (T-M)	L C G (M)	LCG-MOMENT (T-M)	ρ·I (T-M)
CREW & THEIR EFFECTS	3.08	25.90	79.77	-47.80	-147.22	0.
PROVISIONS	10.00	20.95	209.50	-60.20	-602.00	0.
SMALL/PORTABLE TANKS	8.67	10.73	93.03	-61.57	-533.81	0.
MISCELLANEOUS TANKS	22.95	3.09	70.92	-56.60	-1298.97	101.
LASHING EQUIPMENT	30.00	7.94	238.20	-22.52	-675.60	0.
STORE AND OTHERS	25.00	16.18	404.50	31.86	796.50	0.
REMAINED WATER	10.60	0.01	0.11	-0.38	-4.03	415.
SUB T O T A L	110.30	9.94	1096.02	-22.35	-2465.13	516.
COOLING WATER;APT(S)	17.70	1.47	26.02	-69.64	-1232.63	4.
GRAND T O T A L	128.00	8.77	1122.04	-28.89	-3697.76	520.

1. CREW & THEIR EFFECTS ---------- 3.08 TON
   CREW'S WEIGHT : 70 KG/P , CREW'S BELONGINGS : 70 KG/P
   140 KG X 22 PERSONS = 3.08 TON

2. PROVISIONS ---------- 10.00 TON

3. SMALL/PORTABLE TANK (ABT. 80 %) ---------- 8.67 TON
   (CASCADE,OBSERVATION,EXPANSION TANK & ETC)

4. MISCELLANEOUS TANKS (ABT. 20 - 25 %) ---------- 22.95 TON
   (BILGE WATER,WASTE OIL,SLUDGE TANK & ETC)

5. STORE & OTHERS (LBP**2/1000) ---------- 25.0 TON

6. REMAINED WATER (UP TO SUCTION PIPE) ---------- 10.6 TON
   (ASSUMPTION; 0.5 TRIM BY STERN & 5.0 DEG. HEELING)

* DETAILS OF SMALL/PORTABLE TANK

ITEM	WEIGHT	K.G.	KG-MOM.	LCG	LCG-MOM.	F.S.I (T-M)
CASCADE TANK	1.20	3.35	4.02	-56.39	-67.67	
INSPECTION TANK	0.40	3.30	1.32	-56.39	-22.56	
CPP OIL STOR. TANK	2.08	5.85	12.17	-62.80	-130.62	
SMALL L.O. STOR. TANK (A)	0.32	5.67	1.81	-64.95	-20.78	
SMALL L.O. STOR. TANK (B)	0.32	5.67	1.81	-64.95	-20.78	
S/T L.O. HEAD TANK	0.16	9.50	1.52	-64.60	-10.34	
F.W. EXPANSION TK	0.96	17.05	16.37	-59.35	-56.98	
L/T DEAERATION TK	0.32	5.13	1.64	-47.65	-15.25	
DOT FOR EM'CY G/E	2.08	21.37	44.45	-60.60	-126.05	
GRAVITY TANK	0.03	14.35	0.43	66.88	2.01	
EXPANSION TANK FOR S/G	0.09	10.12	0.91	-79.80	-7.18	
HYD. O. STOR. TK. FOR RAMP	0.42	9.25	3.89	-81.77	-34.34	
HYD. O. STOR. TK. FOR S/G	0.29	9.25	2.68	-80.20	-23.26	
T O T A L	8.67	10.73	93.02	-61.57	-533.80	

* DETAILS OF MISCELLANEOUS TANK

ITEM	WEIGHT	K.G.	KG-MOM.	LCG	LCG-MOM.	F.S.I (T-M)
BILGE WATER TANK	5.94	0.17	1.01	-48.58	-288.57	68
WASTE OIL TANK	1.06	0.46	0.49	-48.30	-51.20	1
SLUDGE TANK	1.72	0.56	0.96	-41.03	-70.57	4
FRESH W. DRAIN TK	1.70	0.20	0.34	-65.62	-111.55	3
SEWAGE HOLDING TANK	4.50	5.58	25.11	-66.14	-297.63	13
WASTE OIL MIXING TANK	1.24	14.73	18.27	-56.61	-70.20	-
LUB. OIL DIRTY TK	2.61	0.38	0.99	-53.39	-139.34	4
NO.1 L.O. STOR. TANK	2.14	5.64	12.07	-64.19	-137.37	4
NO.2 L.O. STOR. TANK	2.04	5.75	11.73	-64.99	-132.58	4
T O T A L	22.95	3.09	70.97	-56.60	1299.01	101

(5) CARGO ZONE AND BALE CAPACITY

DECK	TOP DECK										
ZONE NO.				409	408	407	406	405	404	403	402	401
LOCATION (FRAME)				54.00 - 59.00	59.00 - 74.88	74.88 - 90.75	90.75 - 106.63	106.63 - 122.5	122.500 - 138.38	138.38 - 154.25	154.25 - 170.13	170.13 - 186.00
LCG (M)				-37.00	-28.65	-15.95	-3.56	9.45	22.15	34.85	47.68	60.18
TCG (M)				0.00	0.00	0.00	-0.58	-1.90	-0.35	-0.35	-0.17	0.01

DECK	UPPER DECK										
ZONE NO.		311	310	309	308	307	306	305	304	303	302	301
LOCATION (FRAME)		10.00 - 27.25	27.25 - 43.13	43.13 - 59.00	59.00 - 74.88	74.88 - 90.75	90.75 - 106.63	106.63 - 122.50	122.50 - 138.38	138.38 - 154.25	154.25 - 170.13	170.13 - 186.00
LCG (M)		-66.51	-53.98	-41.14	-28.64	-15.95	-3.27	9.43	22.13	34.84	47.54	60.24
TCG (M)		-0.40	-0.22	-0.22	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

DECK	MAIN DECK											
ZONE NO.	212	211	210	209	208	207	206	205	204	203	202	201
LOCATION (FRAME)	4.85 - 13.17	13.17 - 30.25	30.25 - 46.13	46.13 - 62.00	62.00 - 77.88	77.88 - 93.75	93.75 - 109.63	109.63 - 125.50	125.50 - 141.38	141.38 - 157.25	157.25 - 173.13	173.13 - 189.00
LCG (M)	-75.98	-64.34	-51.55	-38.78	-26.25	- 13.56	-0.86	11.85	24.55	37.03	49.19	62.02
TCG (M)	-0.04	-0.35	-0.91	-0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08

DECK	TANK TOP										
ZONE NO.						107	106	105	104	103	102	101
LOCATION (FRAME)						57.00 - 72.75	72.750 - 88.63	88.63 -104.50	104.50 -120.38	120.38 -136.25	136.25 -152.13	152.13 -168.00
LCG (M)						-30.3	-17.65	-4.95	7.81	20.39	32.87	45.30
TCG (M)						0.47	0.47	0.47	0.15	0.00	0.00	0.00

HOLD	UPPER HOLD										
ZONE NO.		311	310	309	308	307	306	305	304	303	302	301
LOCATION (FRAME)		10.00 - 27.25	27.25 - 43.13	43.13 - 59.00	59.00 - 74.88	74.88 - 90.75	90.75 - 106.63	106.63 - 122.50	122.50 - 138.38	138.38 - 154.25	154.25 - 170.13	170.13 - 186.00
CAPACITY (M^3)		937.7	1037.3	1116.4	1265.5	1271.9	1271.9	1271.9	1271.9	1271.9	1271.9	1271.9
TOTAL	13296.2 M^3											

HOLD	MAIN HOLD											
ZONE NO.	212	211	210	209	208	207	206	205	204	203	202	201
LOCATION (FRAME)	4.85 - 13.17	13.17 - 30.25	30.25 - 46.13	46.13 - 62.00	62.00 - 77.88	77.88 - 93.75	93.75 - 109.63	109.63 - 125.50	125.50 - 141.38	141.38 - 157.25	157.25 - 173.13	173.13 - 189.00
CAPACITY (M^3)	872.1	1106.5	1175.5	1282.5	1330.50	1330.5	1330.5	1330.5	1330.5	1269.6	882.5	536.8
TOTAL	13778.0 M^3											

HOLD	LOWER HOLD											
ZONE NO.						107	106	105	104	103	102	101
LOCATION (FRAME)						57.00 - 72.75	72.75 - 88.63	88.63 - 104.50	104.50 - 120.38	120.38 - 136.25	136.25 - 152.13	152.13 - 168.0
CAPACITY (M^3)						1099.2	1107.9	1107.9	1146.7	1149.5	991.0	685.5
TOTAL	7287.7 M^3											

STANDARD

KS -

REG.DATE:

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KOREA SHIPBUILDING & ENGINEERING CORP.

(6) TANK CAPACITY PLAN

WATER BALLAST TANKS S.G.=1.025 T/M^3						
TANK NAME	LOCATION (FRAME NO.)	CAPACITY (100%:M^3)	WEIGHT (100%:TON)	CENTER OF GRAVITY		MAXIMUM INERTIA OF MOMENT (M^4)
				L.C.G. (M)	V.C.G. (M)	
FORE PEAK TANK	189.0 - F.E.	695.8	713.2	73.45	9.08	3678
NO.1 D.B.T. (P)	153.0 - 180.0	93.8	96.1	47.65	0.95	179
NO.1 D.B.T. (S)	153.0 - 180.0	93.8	96.1	47.65	0.95	179
NO.2 D.B.T. (P)	129.0 - 153.0	222.8	228.4	29.87	0.87	850
NO.2 D.B.T. (S)	129.0 - 153.0	222.8	228.4	29.87	0.87	850
NO.3 "A" D.B.T. (P)	111.0 - 129.0	206.1	211.3	13.73	0.84	926
NO.3 "A" D.B.T. (S)	111.0 - 129.0	206.1	211.3	13.73	0.84	926
NO.3 "B" D.B.T. (P)	105.0 - 111.0	64.4	66.0	4.33	0.80	304
NO.3 "B" D.B.T. (S)	105.0 - 111.0	69.8	71.5	4.20	0.84	312
NO.4 D.B.T. (P)	81.0 - 105.0	223.2	228.8	-7.83	0.72	1088
NO.4 D.B.T. (S)	81.0 - 105.0	279.1	286.1	-7.79	0.84	1249
NO.5 D.B.T. (P)	60.0 - 81.0	181.8	186.3	-25.53	0.74	915
NO.5 D.B.T. (S)	60.0 - 81.0	229.8	235.5	-25.59	0.86	1058
AFT PEAK TANK (P)	A.E. - 18.0	115.1	118.0	-74.09	7.40	117
AFT PEAK TANK (S)	A.E. - 18.0	173.8	178.1	-72.98	6.29	155
T O T A L		3078.2	3155.1			

HEAVY FUEL OIL TANKS				S.G. = 0.99 T/M^3		
TANK NAME	LOCATION (FRAME NO.)	CAPACITY (100%:M^3)	WEIGHT (98%:TON)	CENTER OF GRAVITY		MAXIMUM INTERTIA OF MOMENT (M^4)
				L.C.G.(M)	V.C.G.(M)	
NO.1 H.F.O.T. (P)	174.0 - 183.0	187.8	182.2	60.32	4.77	163
NO.1 H.F.O.T. (S)	174.0 - 183.0	187.8	182.2	60.32	4.77	163
NO.2 H.F.O.T. (P)	168.0 - 174.0	129.9	126.0	54.74	4.32	157
NO.2 H.F.O.T. (S)	168.0 - 14.0	129.9	126.0	54.74	4.32	157
H.F.O.T. (D/B : P)	44.0 - 60.0	67.6	65.6	-41.28	0.82	53
H.F.O.T. (D/B : S)	44.0 - 60.0	67.7	65.7	-41.32	0.82	49
H.F.O. SER. TANK (S)	42.0 - 44.0	14.5	14.1	-47.80	5.53	1.4
H.F.O. SETT. TANK (S)	39.0 - 42.0	18.9	18.3	-49.81	5.87	2.1
H.F.O. OVERFLOW TANK (S)	40.0 - 44.0	8.9	8.6	-48.55	0.69	2.7
T O T A L		813.0	788.7			

DIESEL OIL TANKS				S.G. = 0.90 T/M^3		
TANK NAME	LOCATION (FRAME NO.)	CAPACITY (100%:M^3)	WEIGHT (98%:TON)	CENTER OF GRAVITY		MAXIMUM INERTIA OF MOMENT (M4)
				L.C.G. (M)	V.C.G. (M)	
D.O.T. (D/B : P)	44.0 - 60.0	69.1	60.9	-40.28	0.93	139
D.O.T. (D/B : S)	44.0 - 60.0	68.8	60.7	-39.64	0.94	125
D.O. SER. TANK (S)	55.0 - 57.0	9.9	8.7	-37.40	4.47	0.2
D.O. SETT. TANK (S)	55.0 - 57.0	9.9	8.7	-37.40	4.47	0.2
TOTAL		157.7	139.0			

LUBRICATING OIL TANKS				S.G. = 0.90 T/M^3		
TANK NAME	LOCATION (FRAME NO.)	CAPACITY (100%:M^3)	WEIGHT (98%:TON)	CENTER OF GRAVITY		MAXIMUM INERTIA OF MOMENT (M^4)
				L.C.G. (M)	V.C.G. (M)	
L.O. SUMP T (P)	30 - 39	7.8	6.9	-54.63	0.93	1.4
L.O. SUMP T (S)	30 - 39	6.9	6.1	-54.28	0.95	2.6
L.O. CLEAN T (P)	33 - 39	11.4	10.1	-53.24	0.83	11.0
L.O. DIRTY T (S)	33 - 39	11.6	10.2	-53.26	0.85	13.9
NO.1 L.O. STOR. T (P)	22 - 23	9.5	8.4	-64.20	6.78	6.1
NO.2 L.O. STOR. T (P)	21 - 22	9.1	8.0	-65.00	6.85	6.1
TOTAL		56.3	49.7			

FRESH WATER TANKS						S.G. = 1.00 T/M^3
TANK NAME	LOCATION (FRAME NO.)	CAPACITY (100%:M^3)	WEIGHT (100%:TON)	CENTER OF GRAVITY		MAXIMUM INERTIA OF MOMENT (M^4)
				L.C.G. (M)	V.C.G (M)	
F.W.T. (P)	6 - 18	75.7	75.7	-71.20	6.94	36
F.W.T. (S)	6 - 18	97.7	97.7	-71.68	6.95	89
FEED W.T.	23 - 29	25.5	25.5	-61.22	0.78	65
T O T A L		198.9	198.9			

MISCELLANEOUS TANKS						
TANK NAME	LOCATION (FRAME NO.)	CAPACITY (100%:M^3)	WEIGHT (100%:TON)	CENTER OF GRAVITY		MAXIMUM INERTIA OF MOMENT (M^4)
				L.C.G. (M)	V.C.G. (M)	
BILGE W.T.	40 - 44	29.7		-48.60	0.72	152
WASTE O.T. (S)	40 - 44	5.3		-48.57	0.91	5.1
SLUDGE T. (S)	50 - 55	8.6		-40.54	1.12	13.9
FRESH WATER DRAIN T.	18 - 23	8.5		-65.15	0.67	7.4
SEWAGE H. T. (S)	19 - 21	24.7		-66.19	6.86	28
WASTE O. MIX. T. (S)	31 - 33	6.2		-56.60	15.90	0.3
STABILIZER "A" T	153-159	129.2		42.61	7.84	2436
STABILIZER "B" T	159-168	194.6		48.52	8.02	3826
ANT-HEELING T.	168 - 189	401.5		59.44	8.82	7229

(7) SMALL TANK CAPACITY PLAN

TANK NAME	LOCATION (FRAME NO.)	CAPACITY (100%:M³)	L.C.G(M)	K.G. (M)
CASCADE TANK	32 - 33	1.46	-56.39	3.50
INSPECTION TANK	32 - 33	0.53	-56.39	3.50
C.P.P. OIL STOR TANK	23 - 25	2.61	-62.80	6.00
SMALL L.O. STOR. TANK (A)	21 - 22	0.36	-64.95	5.72
SMALL L.O. STOR. TANK (B)	21 - 22	0.36	-64.95	5.72
S/T L.O. HEAD TANK	21 - 23	0.18	-64.60	9.55
F.W. EXPANSION TANK	27 - 30	1.20	-59.35	17.15
OVERFLOW T. FOR D.O.T. (D/B)	45 - 46	0.08	-45.75	2.89
OVERFLOW T. FOR H.F.O.T. (D/B)	44 - 46	0.08	-46.20	2.89
L.T. DEAERATION TANK	43 - 44	0.36	-47.65	5.18
EM'CY G/E D.O.T.	26 - 28	2.59	-60.60	21.54
H.F.O. OVERFLOW T. (FWD)	186 - 188	3.45	67.52	14.52
GRAVITY TANK	185 - 186	0.04	66.88	14.44
EXPANTION T. FOR S/G	-3 - -1	0.11	-79.80	10.15
HYD. O. STOR. T. FOR RAMP	-6 - -4	0.53	-81.77	9.35
HYD. O. STOR. T. FOR S/G	-4 - -2	0.36	-80.20	9.33

D A T A FOR L O A D I N G C A L C U L A T I O N

SHIP NO. 1035 DWT. 9,700 MT RO-RO VESSEL
KOREA SHIPBUILDING & ENGINEERING CORPORATION

(8) GUIDELINE OF INTACT STABILITY

(INCL. IMO & SBON REGULATION)

FOR EVERY LOADING CONDITION WHICH IS TO BE SHOWN IN THE TRIM & STABILITY BOOKLET, THE RIGHTING ARM CURVE(GZ CURVE) IS TO BE PLOTTED. THEN;

(1) THE AREA UNDER THE RIGHTING LEVER CURVE(GZ CURVE) SHOULD NOT BE LESS THAN 0.055 METER-RADIANS UP TO 30 DEGREE ANGLE OF HEEL AND NOT LESS THAN 0.09 METER-RADIANS UP TO 40 DEGREE OR THE ANGLE OF DOWNFLOODING IF THIS ANGLE IS LESS THAN 40 DEGREES.
ADDITONALLY, THE AREA UNDER THE ABOVE MENTIONED CURVE BETWEEN THE ANGLE OF HEEL OF 30 AND 40 DEGREE OR BETWEEN 30 AND DOWNFLOODING ANGLE, IF THIS ANGLE IS LESS THAN 40 DEGREES, SHOULD NOT BE LESS THAN 0.03 METER-RADIANS.

(2) THE RIGHTING LEVER GZ SHOULD BE AT LEAST 0.20 METERS AT AN ANGLE OF HEEL EQUAL TO OR GREATER THAN 30 DEGREES.

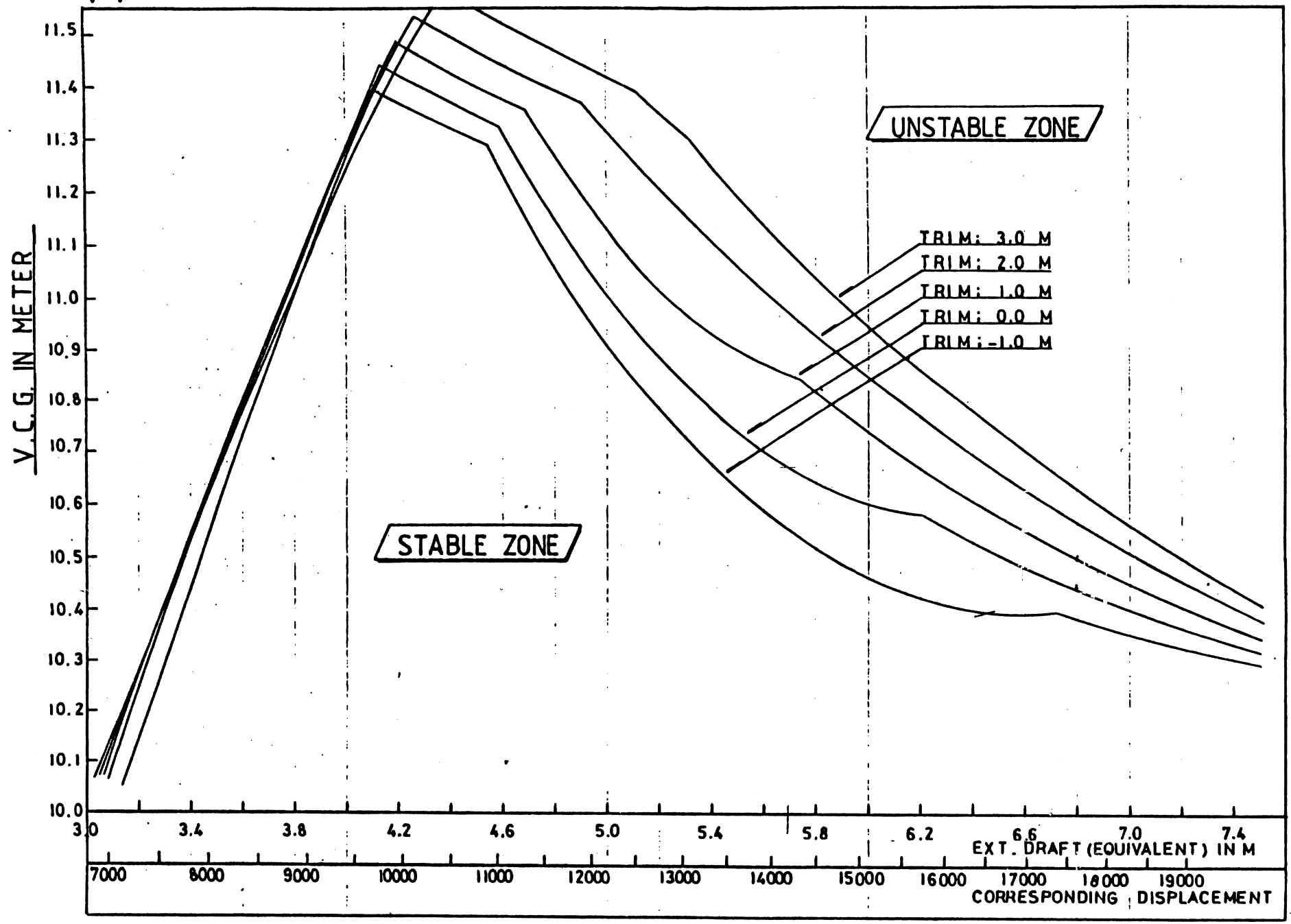
(3) THE MAXIMUM RIGHTING ARM SHOULD OCCUR AT AN ANGLE OF HEEL PREFERABLY EXCEEDING 30 BUT NOT LESS THAN 25 DEGREES.

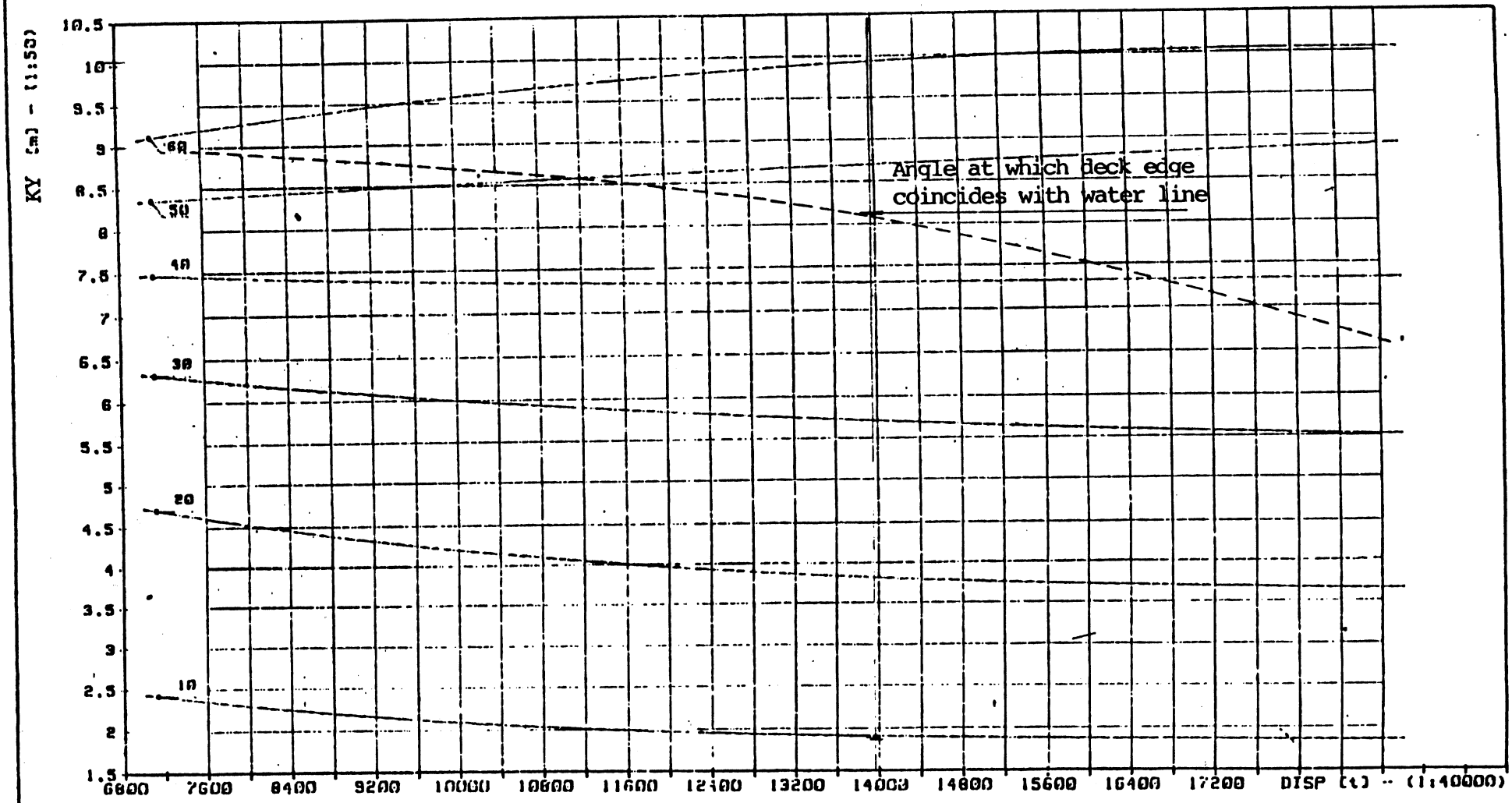
(4) THE INITIAL METACENTRIC HEIGHT(GM) AFTER CORRECTION FOR THE FREE SURFACE EFFECTS OF LIQUID IN TANKS, SHOULD NOT BE LESS THAN 0.15 METERS.

(5) THE KG WHICH IS USED IN CALCULATING THE RIGHTING LEVER CURVE(GZ CURVE) SHOULD BE CORRECTED FOR THE FREE SURFACE EFFECTS OF LIQUID IN TANKS IN EVERY LOADING CONDITION, INCLUDING DEPARTURES.

(6) THE RANGE OF STABILITY SHALL BE AT LEAST 60 DEGREES, BUT THE RANGE OF STABILITY(θV) IS ALLOWED TO BE LESS THAN 60 DEGREES AND THE MAXIMUM RIGHTING ARM(GZ-MAX) IS ALLOWED TO OCCUR AT AN ANGLE(θ-MAX) LESS THAN 30 DEGREES, BUT NOT LESS THAN 15 DEGREES, ON CONDITION THAT THE AREA BELOW THE RIGHTING ARM CURVE UP TO ANGLE θ IS AT LEAST $(0.055 + 0.001(30 - \theta))$ M*RAD.
WHERE θ IS θ-MAX OR $\theta V/2$ WHICHEVER IS LESS.

(9) MAXIMUM ALLOWABLE VCG





PILOT NV5001	TRIM: 0.000 [m] FREE TO TRIM KP: 0.000 [m] DATE: 86.08.04 SIGN: SCKNON WATER DENSITY: 1.025 [t/m3] SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL,	(10) CROSS CURVES

(11) METRIC CONVERSION

Multiply by	To convert from	To obtain	-
0.03937	Millimeters	Inches	25.400
0.3937	Centimeters	Inches	2.5400
3.2808	Meters	Feet	0.3048
2.2046	Kilometers	Pounds	0.45359
0.0009842	Kilogrammes	Tons (2240 Lbs)	1016.047
0.9842	Metric (i.e. Tonnes of Tons 1000 Kilos)	Tons (2240 Lbs)	1.016
2.4998	Metric tons per centimeter(of immersion)	Tons per Inch (Immersion)	0.4000
8.2014	Moment to Change Trim One Centimeter (Tonne Meter Units)	Moment to Change Trim One Inch (Foot Ton Units)	0.122
187.9767	Meter Radians	Feet Degrees	0.0053
	To obtain	To convert from	Multiply by above

Relation between Weight and Volume

10mm, cubed = 1 cubic centimeter

1 cubic centimeter of freshwater (S.G. = 1.0) = 1 gramme

1000 cubic centimeter of freshwater (S.G. = 1.0) = 1 kilogram (1000 grammes)

1 cubic meter of freshwater (S.G. = 1.0) = 1 Tonne (1000 Kilos)

1 cubic meter of saltwater (S.G. = 1.025) = 1.025 Tonnes

1 Tonne of saltwater (S.G. = 1.025) = 0.975 Cubic meters

* 1 cubic meter = 35.316 cubic feet

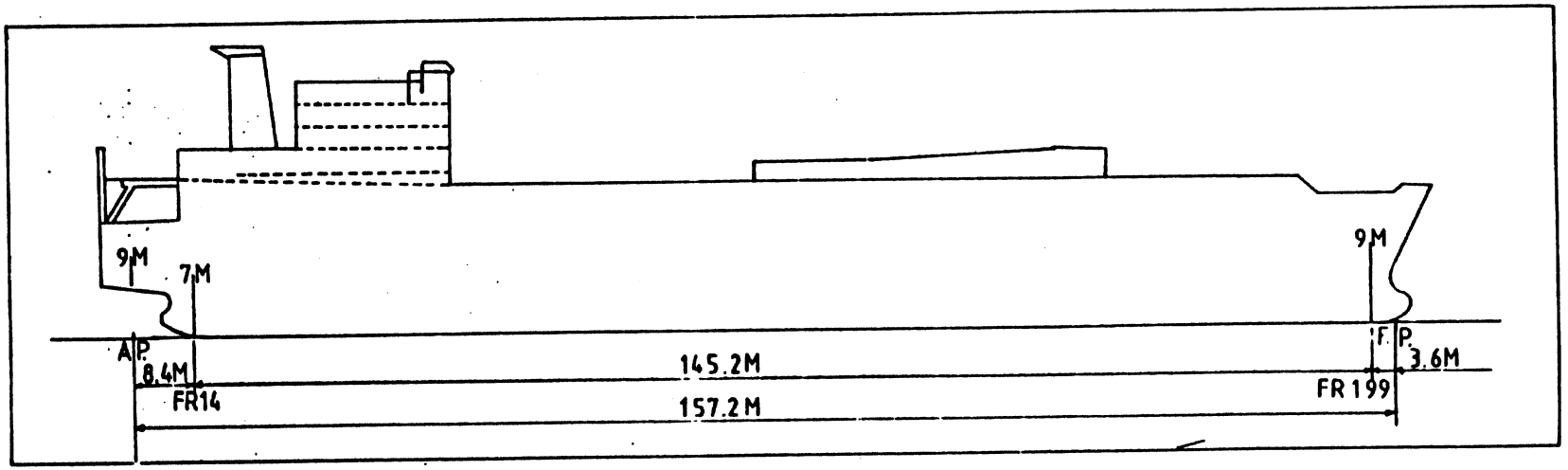
1 cubic foot = 0.0283 cubic meters

D A T A FOR L O A D I N G C A L C U L A T I O N

SHIP NO. 1035 DWT. 9,700 MT RO-RO VESSEL
KOREA SHIPBUILDING & ENGINEERING CORPORATION

(12) D R A U G H T C O R R E C T I O N

*** DRAUGHT MARK ARRANGEMENT ***



* DRAUGHT CORRECTION METHOD

$$\text{STEM CORRECTION} = \frac{-3.600}{145.200} * \text{TRIM(APPARENT)}$$

$$\text{STERN CORRECTION} = \frac{8.400}{145.200} * \text{TRIM(APPARENT)}$$

TRIM(APPARENT) = AFTWD. DRAUGHT - FORWD. DRAUGHT

*** STEM CORRECTION ***

UNIT: METER

FORWD. DRAUGHT	3.000	3.500	4.000	4.500	5.000	5.500	6.000	6.500	7.000	7.500	8.000
AFTWD. DRAUGHT											
3.000	0.0	0.012	0.025	0.037	0.050	0.062	0.074	0.087	0.099	0.112	0.124
3.500	-0.012	0.0	0.012	0.025	0.037	0.050	0.062	0.074	0.087	0.099	0.112
4.000	-0.025	-0.012	0.0	0.012	0.025	0.037	0.050	0.062	0.074	0.087	0.099
4.500	-0.037	-0.025	-0.012	0.0	0.012	0.025	0.037	0.050	0.062	0.074	0.087
5.000	-0.050	-0.037	-0.025	-0.012	0.0	0.012	0.025	0.037	0.050	0.062	0.074
5.500	-0.062	-0.050	-0.037	-0.025	-0.012	0.0	0.012	0.025	0.037	0.050	0.062
6.000	-0.074	-0.062	-0.050	-0.037	-0.025	-0.012	0.0	0.012	0.025	0.037	0.050
6.500	-0.087	-0.074	-0.062	-0.050	-0.037	-0.025	-0.012	0.0	0.012	0.025	0.037
7.000	-0.094	-0.082	-0.070	-0.059	-0.047	-0.035	-0.023	-0.012	0.0	0.012	0.023
7.500	-0.105	-0.094	-0.082	-0.070	-0.059	-0.047	-0.035	-0.023	-0.012	0.0	0.012
8.000	-0.117	-0.105	-0.094	-0.082	-0.070	-0.059	-0.047	-0.035	-0.023	-0.012	0.0

*** STERN CORRECTION ***

FORWD. DRAUGHT	3.000	3.500	4.000	4.500	5.000	5.500	6.000	6.500	7.000	7.500	8.000
AFTWD. DRAUGHT											
3.000	0.0	-0.029	-0.058	-0.087	-0.116	-0.145	-0.174	-0.202	-0.231	-0.260	-0.289
3.500	0.029	0.0	-0.029	-0.058	-0.087	-0.116	-0.145	-0.174	-0.202	-0.231	-0.260
4.000	0.058	0.029	0.0	-0.029	-0.058	-0.087	-0.116	-0.145	-0.174	-0.202	-0.231
4.500	0.087	0.058	0.029	0.0	-0.029	-0.058	-0.087	-0.116	-0.145	-0.174	-0.202
5.000	0.116	0.087	0.058	0.029	0.0	-0.029	-0.058	-0.087	-0.116	-0.145	-0.174
5.500	0.145	0.116	0.087	0.058	0.029	0.0	-0.029	-0.058	-0.087	-0.116	-0.145
6.000	0.174	0.145	0.116	0.087	0.058	0.029	0.0	-0.029	-0.058	-0.087	-0.116
6.500	0.202	0.174	0.145	0.116	0.087	0.058	0.029	0.0	-0.029	-0.058	-0.087
7.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

D A T A FOR L O A D I N G C A L C U L A T I O N

SHIP NO. 1035 DWT. 9,700 MT RO-RO VESSEL
KOREA SHIPBUILDING & ENGINEERING CORPORATION

(13) T R I M M I N G T A B L E

THE FOLLOWING TABLE SHOWS THE VARIABLE VALUES OF DRAUGHT IN METER AT FORE DRAUGHT(F.P) AND AFT DRAUGHT(A.P) DUE TO ADDING 100.0 TONNES WEIGHT AT ANY LOCATION.

WHEN DISCHARGING, THE POSITIVE SIGN OF THE TABULATED VALUES SHOULD BE REPLACED BY THE NEGATIVE AND VICE VERSA.

*** E X A M P L E ***

* SHIP'S CONDITION BEFORE LOADING

FORE DRAUGHT(F.P) : 5.875 M AFT DRAUGHT(A.P) : 6.000 M

* LOADING : 150 TONNES AT 40.0 M (LONGITUDINAL CENTER OF GRAVITY)

1. MEAN DRAUGHT : 5.938 M

2. VARIATION OF DRAUGHT

		FORE	AFT
DRAUGHT	5.750 M	0.114	-0.037
DRAUGHT	6.000 M	0.111	-0.034
DRAUGHT	5.938 M	0.112 M	-0.035 M

3. CORRECTION AMOUNT IN CASE OF 150 TONNES

FORE : (150/100) X 0.112 = 0.168 M
AFT : (150/100) X-0.035 =-0.053 M

4. NEW DRAUGHT

FORE DRAUGHT(F.P) : 5.875 + (0.168) = 6.043 M
AFT DRAUGHT(A.P) : 6.000 + (-0.053) = 5.947 M

*** VARIATION OF FORE DRAUGHT(F.P) ***

UNIT: METER

LCG (M)	-80.0	-70.0	-60.0	-50.0	-40.0	-30.0	-20.0	-10.0	0.0
DRAUGHT									
3.50	-0.157	-0.132	-0.107	-0.083	-0.058	-0.033	-0.009	0.016	0.041
4.00	-0.150	-0.126	-0.102	-0.079	-0.055	-0.031	-0.007	0.016	0.040
4.50	-0.141	-0.118	-0.096	-0.073	-0.051	-0.028	-0.006	0.017	0.039
5.00	-0.131	-0.110	-0.089	-0.068	-0.046	-0.025	-0.004	0.017	0.039
5.50	-0.121	-0.101	-0.081	-0.062	-0.042	-0.022	-0.002	0.018	0.038
5.75	-0.116	-0.097	-0.078	-0.059	-0.039	-0.020	-0.001	0.018	0.037
6.00	-0.110	-0.092	-0.073	-0.055	-0.037	-0.018	0.000	0.019	0.037
6.25	-0.103	-0.085	-0.068	-0.051	-0.033	-0.016	0.002	0.019	0.036
6.50	-0.096	-0.079	-0.063	-0.046	-0.030	-0.014	0.003	0.019	0.036
6.75	-0.091	-0.075	-0.059	-0.044	-0.028	-0.012	0.004	0.020	0.035
7.00	-0.087	-0.072	-0.057	-0.041	-0.026	-0.011	0.005	0.020	0.035

LCG (M)	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0
DRAUGHT									
3.50	0.041	0.065	0.090	0.115	0.139	0.164	0.189	0.213	0.238
4.00	0.040	0.064	0.087	0.111	0.135	0.159	0.182	0.206	0.230
4.50	0.039	0.062	0.084	0.107	0.129	0.152	0.174	0.197	0.219
5.00	0.039	0.060	0.081	0.102	0.124	0.145	0.166	0.187	0.209
5.50	0.038	0.058	0.078	0.097	0.117	0.137	0.157	0.177	0.197
5.75	0.037	0.057	0.076	0.095	0.114	0.134	0.153	0.172	0.191
6.00	0.037	0.055	0.074	0.092	0.111	0.129	0.147	0.166	0.184
6.25	0.036	0.054	0.071	0.088	0.106	0.123	0.141	0.158	0.175
6.50	0.036	0.052	0.069	0.085	0.101	0.118	0.134	0.151	0.167
6.75	0.035	0.051	0.067	0.083	0.099	0.114	0.130	0.146	0.162
7.00	0.035	0.051	0.066	0.081	0.097	0.112	0.128	0.143	0.158

*** VARIATION OF AFT DRAUGHT(A.P) ***

UNIT: METER

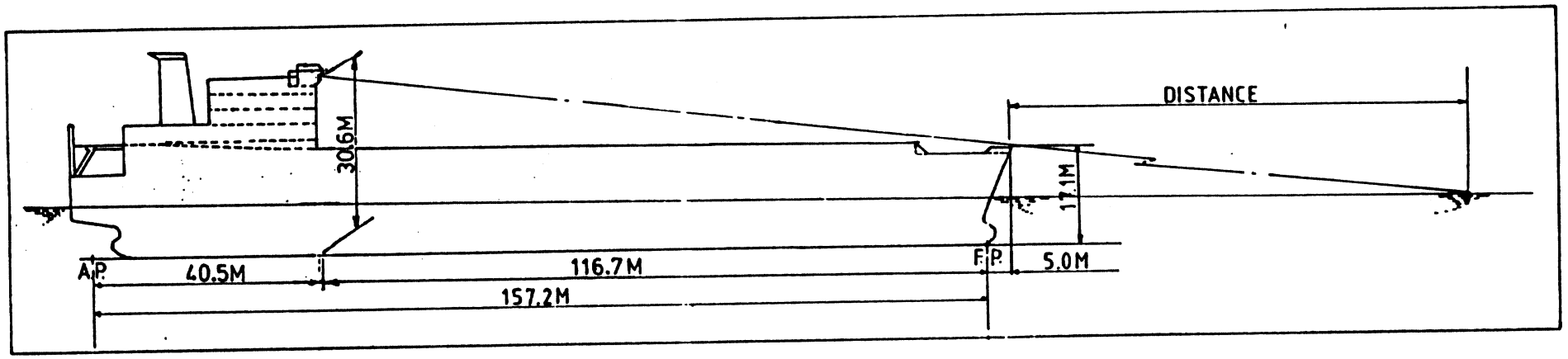
LCG (M)	-80.0	-70.0	-60.0	-50.0	-40.0	-30.0	-20.0	-10.0	0.0
DRAUGHT									
3.50	0.225	0.202	0.178	0.154	0.131	0.107	0.083	0.059	0.036
4.00	0.214	0.192	0.170	0.147	0.125	0.102	0.080	0.057	0.035
4.50	0.201	0.180	0.159	0.138	0.117	0.096	0.075	0.054	0.034
5.00	0.187	0.168	0.148	0.129	0.110	0.090	0.071	0.052	0.032
5.50	0.172	0.155	0.137	0.119	0.102	0.084	0.066	0.049	0.031
5.75	0.165	0.148	0.131	0.115	0.098	0.081	0.064	0.047	0.030
6.00	0.156	0.140	0.125	0.109	0.093	0.077	0.061	0.045	0.030
6.25	0.145	0.130	0.116	0.101	0.087	0.072	0.058	0.043	0.029
6.50	0.135	0.121	0.108	0.095	0.081	0.068	0.055	0.041	0.028
6.75	0.128	0.115	0.103	0.090	0.078	0.065	0.052	0.040	0.027
7.00	0.124	0.112	0.100	0.087	0.075	0.063	0.051	0.039	0.027

LCG (M)	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0
DRAUGHT									
3.50	0.036	0.012	-0.012	-0.035	-0.059	-0.083	-0.107	-0.130	-0.154
4.00	0.035	0.012	-0.010	-0.033	-0.055	-0.078	-0.100	-0.123	-0.145
4.50	0.034	0.013	-0.008	-0.029	-0.050	-0.071	-0.092	-0.113	-0.133
5.00	0.032	0.013	-0.006	-0.026	-0.045	-0.064	-0.084	-0.103	-0.123
5.50	0.031	0.013	-0.004	-0.022	-0.040	-0.057	-0.075	-0.093	-0.110
5.75	0.030	0.014	-0.003	-0.020	-0.037	-0.054	-0.071	-0.088	-0.104
6.00	0.030	0.014	-0.002	-0.018	-0.034	-0.050	-0.065	-0.081	-0.097
6.25	0.029	0.014	-0.000	-0.015	-0.029	-0.044	-0.058	-0.073	-0.087
6.50	0.028	0.015	0.001	-0.012	-0.025	-0.039	-0.052	-0.065	-0.079
6.75	0.027	0.015	0.002	-0.010	-0.023	-0.036	-0.048	-0.061	-0.073
7.00	0.027	0.015	0.002	-0.010	-0.022	-0.034	-0.046	-0.058	-0.071

D A T A FOR L O A D I N G C A L C U L A T I O N

SHIP NO. 1035 DWT. 9,700 MT RO-RO VESSEL
KOREA SHIPBUILDING & ENGINEERING CORPORATION

(14) V I S I B I L I T Y



*** DISTANCE FROM STEM END ***

UNIT: METER

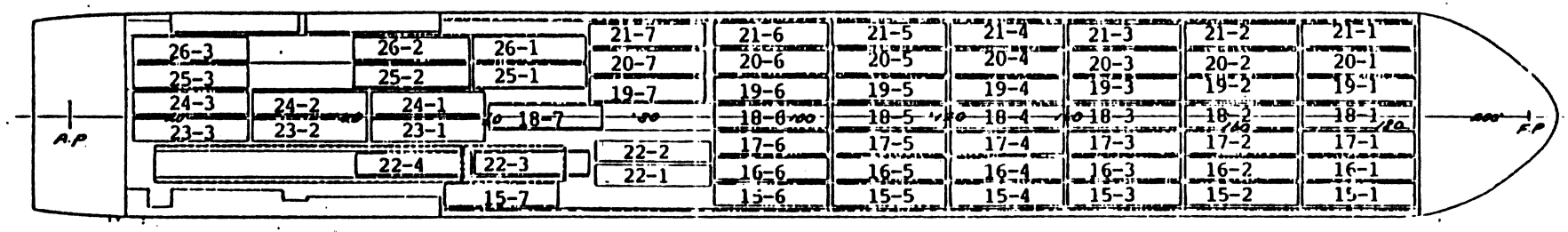
DRAUGHT T R I M	4.600	4.700	4.800	4.900	5.000	5.100	5.200	5.300	5.400
3.00	153.5	152.4	151.3	150.2	149.1	148.0	146.9	145.8	144.8
2.50	145.5	144.5	143.4	142.4	141.3	140.3	139.2	138.2	137.1
2.00	138.1	137.1	136.1	135.1	134.0	133.0	132.0	131.0	130.0
1.50	131.2	130.2	129.2	128.2	127.2	126.2	125.2	124.3	123.3
1.00	124.6	123.7	122.7	121.8	120.8	119.8	118.9	117.9	117.0
0.50	118.5	117.6	116.6	115.7	114.8	113.8	112.9	112.0	111.1
0.0	112.7	111.8	110.9	110.0	109.1	108.2	107.3	106.4	105.5
-0.50	107.2	106.3	105.5	104.6	103.7	102.8	102.0	101.1	100.2
-1.00	102.0	101.2	100.3	99.5	98.6	97.8	96.9	96.1	95.2

DRAUGHT T R I M	5.400	5.500	5.600	5.700	5.800	5.900	6.000	6.100	6.200
3.00	144.8	143.7	142.6	141.5	140.4	139.3	138.2	137.1	136.0
2.50	137.1	136.1	135.0	134.0	132.9	131.9	130.8	129.7	128.7
2.00	130.0	128.9	127.9	126.9	125.9	124.9	123.9	122.8	121.8
1.50	123.3	122.3	121.3	120.3	119.3	118.3	117.4	116.4	115.4
1.00	117.0	116.0	115.1	114.1	113.2	112.2	111.2	110.3	109.3
0.50	111.1	110.1	109.2	108.3	107.3	106.4	105.5	104.6	103.6
0.0	105.5	104.6	103.7	102.8	101.9	101.0	100.1	99.2	98.3
-0.50	100.2	99.3	98.5	97.6	96.7	95.8	94.9	94.1	93.2
-1.00	95.2	94.4	93.5	92.7	91.8	91.0	90.1	89.3	88.4

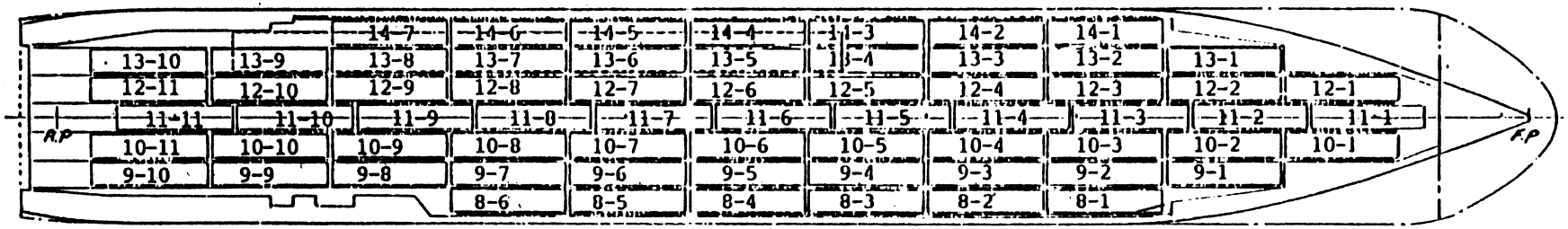
DRAUGHT T R I M	6.200	6.300	6.400	6.500	6.600	6.700	6.800	6.900	7.000
3.00	136.0	135.0	133.9	132.8	131.7	130.6	129.5	128.4	127.3
2.50	128.7	127.6	126.6	125.5	124.5	123.4	122.4	121.3	120.3
2.00	121.8	120.8	119.8	118.8	117.7	116.7	115.7	114.7	113.7
1.50	115.4	114.4	113.4	112.4	111.4	110.4	109.5	108.5	107.5
1.00	109.3	108.4	107.4	106.5	105.5	104.5	103.6	102.6	101.7
0.50	103.6	102.7	101.8	100.8	99.9	99.0	98.1	97.1	96.2
0.0	98.3	97.4	96.5	95.6	94.7	93.8	92.9	92.0	91.0
-0.50	93.2	92.3	91.4	90.6	89.7	88.8	87.9	87.1	86.2
-1.00	88.4	87.5	86.7	85.8	85.0	84.1	83.3	82.4	81.6

(15) ROLL-TRAILER STOWAGE PLAN

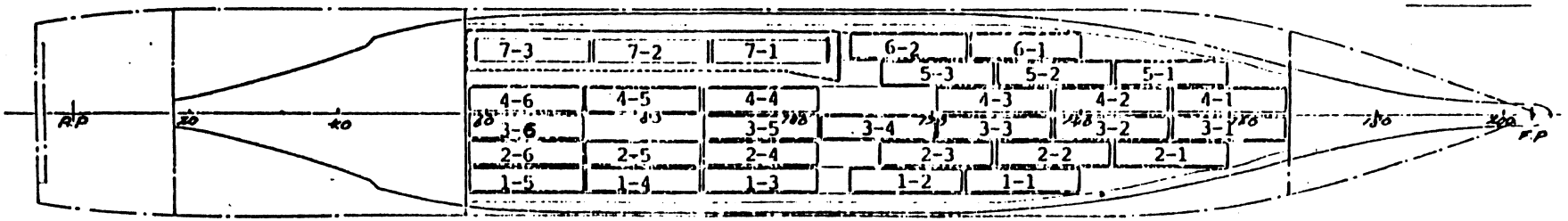
UPPER DECK



MAIN DECK



TANK TOP



TANK TOP

LANE	NO.	W.T.	L.C.G.	V.C.G.	T.C.G.
1	1	55.7	23.425	4.001	7.35
	2	"	10.763	"	"
	3	"	-4.975	"	"
	4	"	-17.525	"	"
	5	"	-30.100	"	"
	SUB	278.5	-3.682	4.001	7.35
2	1	55.7	39.300	4.001	4.41
	2	"	26.600	"	"
	3	"	13.925	"	"
	4	"	-4.975	"	"
	5	"	-17.525	"	"
	6	"	-30.100	"	"
	SUB	334.2	4.538	4.001	4.41
3	1	55.7	45.650	4.001	1.47
	2	"	32.950	"	"
	3	"	20.250	"	"
	4	"	7.625	"	"
	5	"	-4.975	"	"
	6	"	-30.100	"	"
	SUB	334.2	11.900	4.001	1.47
4	1	55.7	45.650	4.001	-1.47
	2	55.7	32.950	"	"
	3	"	20.250	"	"
	4	"	-4.975	"	"
	5	"	-17.525	"	"
	6	"	-30.100	"	"
	SUB	334.2	7.708	4.001	-1.47
5	1	55.7	39.300	4.001	-4.41
	2	"	26.600	"	"
	3	"	13.900	"	"
	SUB	167.1	26.600	4.001	-4.41
6	1	55.7	23.425	4.001	-7.35
	2	"	10.725	4.001	-7.35
	SUB	111.4	17.075	4.001	-7.35
7	1	55.7	-3.950	4.001	-6.585
	2	"	-16.650	"	"
	3	"	-29.350	"	"
	SUB	167.1	-16.650	4.001	-6.585
TOTAL		1726.7	6.144	4.001	0.501

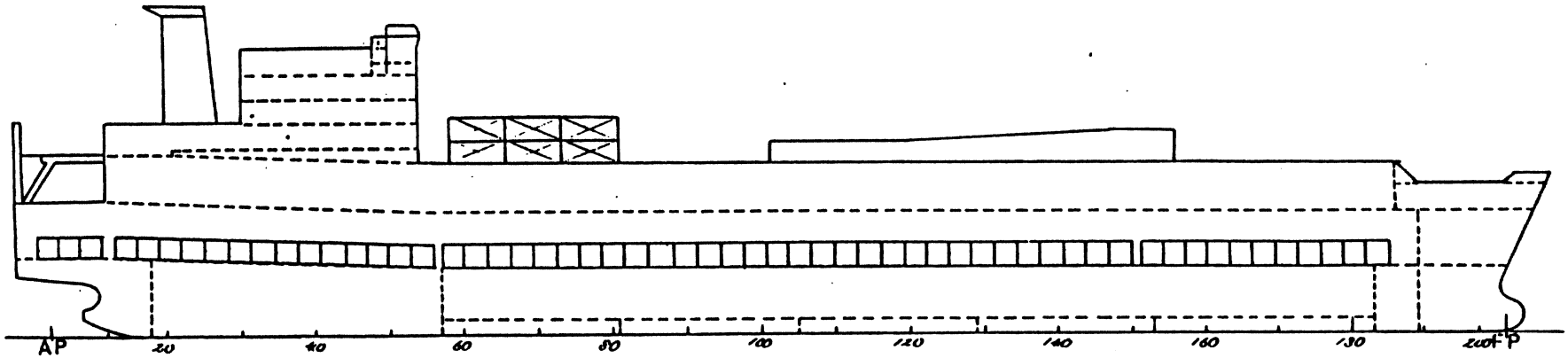
MAIN DECK

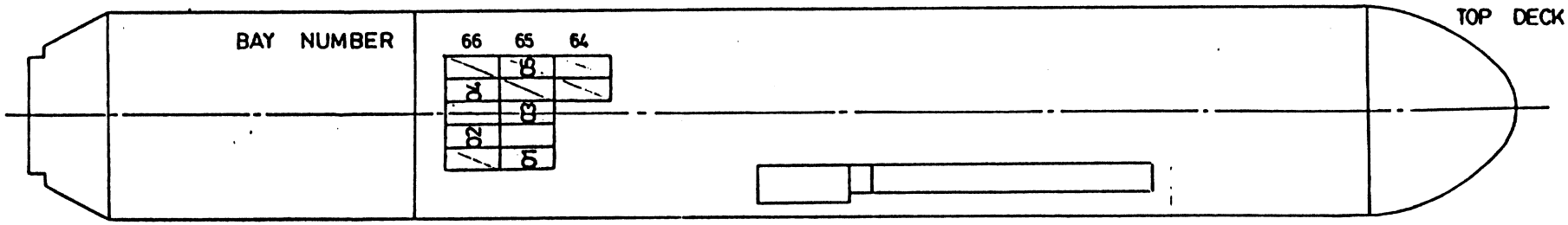
LANE	NO.	W.T.	L.C.G.	V.C.G	T.C.G.	LANE	NO.	W.T.	L.C.G.	V.C.G.	T.C.G.
8	1	55.7	32.950	9.607	8.82		8	55.7	-27.380	9.607	0
	2	"	20.250	"	"		9	"	-40.080	9.726	"
	3	"	7.550	"	"		10	"	-52.780	10.147	"
	4	"	-5.150	"	"		11	"	-65.480	10.567	"
	5	"	-17.850	"	"		SUB	612.7	-1.976	9.754	0
	6	"	-30.550	"	"	12	1	55.7	58.350	9.607	-2.94
	SUB	334.2	1.200	9.607	8.82		2	"	45.650	"	"
9	1	55.7	45.650	9.607	5.88		3	"	32.950	"	"
	2	"	32.950	"	"		4	"	20.250	"	"
	3	"	20.250	"	"		5	"	7.550	"	"
	4	"	7.550	"	"		6	"	-5.150	"	"
	5	"	-5.150	"	"		7	"	-17.850	"	"
	6	"	-17.850	"	"		8	"	-30.550	"	"
	7	"	-30.550	"	"		9	"	-43.250	9.831	"
	8	"	-43.250	9.831	"		10	"	-55.950	10.252	"
	9	"	-55.950	10.252	"		11	"	-68.650	10.673	"
	10	"	-68.650	10.673	"		SUB	612.7	-5.150	9.783	-2.94
	SUB	557.0	-11.500	9.801	5.88	13	1	55.7	45.650	9.607	-5.88
10	1	55.7	58.350	9.607	2.94		2	"	32.950	"	"
	2	"	45.650	"	"		3	"	20.250	"	"
	3	"	32.950	"	"		4	"	7.550	"	"
	4	"	20.250	"	"		5	"	-5.150	"	"
	5	"	7.550	"	"		6	"	-17.850	"	"
	6	"	-5.150	"	"		7	"	-30.550	"	"
	7	"	-17.850	"	"		8	"	-43.250	9.831	"
	8	"	-30.550	"	"		9	"	-55.950	10.252	"
	9	"	-43.250	9.831	"		10	"	-68.650	10.673	"
	10	"	-55.950	10.252	"		SUB	557.0	-11.500	9.801	-5.88
	11	"	-68.650	10.673	"	14	1	55.7	32.950	9.607	-8.82
	SUB	612.7	-5.150	9.783	2.94		2	"	20.250	"	"
11	1	55.7	61.530	9.607	0		3	"	7.550	"	"
	2	"	48.830	"	"		4	"	-5.150	"	"
	3	"	36.130	"	"		5	"	-17.850	"	"
	4	"	23.430	"	"		6	"	-30.550	"	"
	5	"	10.730	"	"		7	"	-43.250	9.831	"
	6	"	-1.980	"	"		SUB	389.9	-5.150	9.639	-8.82
	7	"	-14.680	"	"	TOTAL		3676.2	-5.968	9.752	+0.134

UPPER DECK

LANE	NO.	W.T.	L.C.G.	V.C.G.	T.C.G.	LANE	NO.	W.T.	L.C.G.	V.C.G.	T.C.G.
15	1	55.7	60.050	15.501	8.82	20	1	55.7	60.050	15.501	-5.88
	2	"	47.350	"	"		2	"	43.350	"	"
	3	"	34.650	"	"		3	"	34.650	"	"
	4	"	21.950	"	"		4	"	21.950	"	"
	5	"	9.250	"	"		5	"	9.250	"	"
	6	"	-3.450	"	"		6	"	-3.450	"	"
	7	"	-32.450	"	"		7	"	-17.140	"	"
	SUB	389.9	19.621	15.501	8.82		SUB	389.9	21.809	15.501	-5.88
16	1	55.7	60.050	15.501	5.88	21	1	55.7	60.050	15.501	-8.82
	2	"	47.350	"	"		2	"	43.350	"	"
	3	"	34.650	"	"		3	"	34.650	"	"
	4	"	21.950	"	"		4	"	21.950	"	"
	5	"	9.250	"	"		5	"	9.250	"	"
	6	"	-3.450	"	"		6	"	-3.450	"	"
	SUB	334.2	28.300	15.501	5.88		7	"	-17.140	"	"
17	1	55.7	60.050	15.501	2.94		SUB	389.9	21.809	15.501	-8.82
	2	"	43.350	15.501	"	22	1	55.7	-16.150	15.501	6.92
	3	"	34.650	"	"		2	"	-16.150	"	3.99
	4	"	21.950	"	"		3	"	-30.180	"	5.45
	5	"	9.250	"	"		4	"	-42.880	15.731	"
	6	"	-3.450	"	"		SUB	222.8	-26.340	15.559	5.45
	SUB	334.2	28.300	15.501	2.94	23	1	55.7	-40.350	15.640	1.47
18	1	55.7	60.050	15.501	0		2	"	-53.050	16.099	"
	2	"	43.350	"	"		3	"	-65.750	16.558	"
	3	"	34.650	"	"		SUB	167.1	-53.050	16.099	1.47
	4	"	21.950	"	"	24	1	55.7	-40.350	15.640	-1.47
	5	"	9.250	"	"		2	"	-53.050	16.099	"
	6	"	-3.450	"	"		3	"	-65.750	16.558	"
	7	"	-27.650	"	"		SUB	167.1	-53.050	16.099	-1.47
	SUB	389.9	20.307	15.501	0	25	1	55.7	-30.830	15.501	-4.41
19	1	55.7	60.050	15.501	-2.94		2	"	-43.530	15.755	"
	2	"	43.350	"	"		3	"	-65.750	16.558	"
	3	"	34.650	"	"		SUB	167.1	-46.703	15.938	-4.41
	4	"	21.950	"	"	26	1	55.7	-30.830	15.501	-7.35
	5	"	9.250	"	"		2	"	-43.530	15.755	"
	6	"	-3.450	"	"		3	"	-65.750	16.558	"
	7	"	-17.140	"	"		SUB	167.1	-46.703	15.938	-7.35
	SUB	389.9	21.809	15.501	-2.94	TOTAL		3509.1	5.924	15.603	-0.354

(16) CONTAINER STOWAGE PLAN

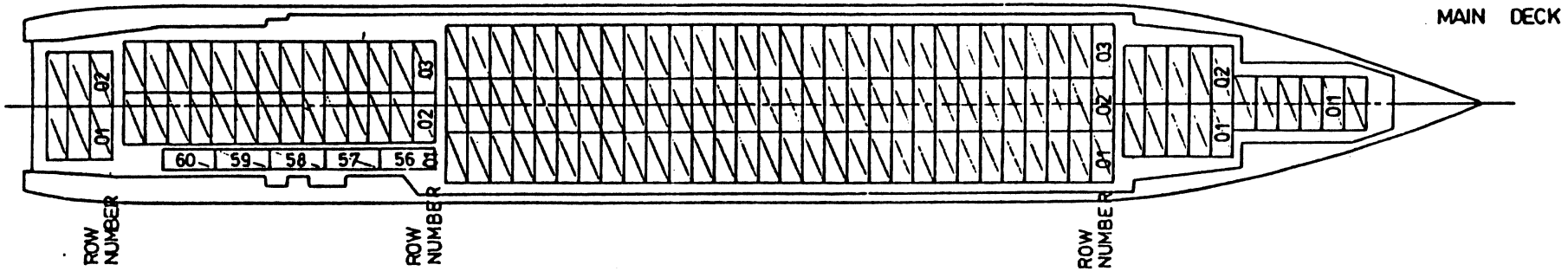




BAY NUMBER

62 55 53 51 49 47 45 43 41 39 37 35 33 31 29 27 25 23 21 19 17 15 13 11 09 07 05 03 01

63 61 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10 08 06 04 02



BAY NO.	01	02	03	04	05	06	07	08	09	10	11	TOTAL
NUMBER	1	1	1	1	1	1	2	2	2	2	2	16TEU
V.C.G. (M)	8.566											8.566
L.C.G. (M)	64.836	62.374	59.912	57.500	54.988	52.526	50.063	47.601	45.139	42.677	40.215	50.220

BAY NO.	12	13	14	15	16	17	18	19	20	21	22	23	24	25
NUMBER	3	3	3	3	3	3	3	3	3	3	3	3	3	3
V.C.G. (M)	8.566													
L.C.G. (M)	36.641	34.179	31.717	29.255	26.793	24.331	21.869	19.407	16.945	14.483	12.021	9.559	7.097	4.635

BAY NO.	26	27	28	29	30	31	32	33	34	35	36	37	38	39
NUMBER	3	3	3	3	3	3	3	3	3	3	3	3	3	3
V.C.G. (M)	8.566													
L.C.G. (M)	2.173	-0.290	-2.752	-5.214	-7.676	-10.138	-12.600	-15.062	-17.524	-19.986	-22.448	-24.910	-27.372	-29.834

BAY NO.	40	41	TOTAL
NUMBER	3	3	90 TEU
V.C.G. (M)	8.566		8.566
L.C.G. (M)	-32.296	-34.758	0.942

BAY NO.	42	43	44	45	46	47	48	49	50	51	52	53	54	55
NUMBER	2	2	2	2	2	2	2	2	2	2	2	2	2	2
V.C.G. (M)	8.612	8.694	8.775	8.857	9.938	9.020	9.102	9.183	9.265	9.346	9.428	9.509	9.591	9.673
L.C.G. (M)	-37.929	-40.390	-42.850	-45.311	-47.771	-50.232	-52.693	-55.153	-57.614	-60.075	-62.535	-64.996	-67.457	-69.917

BAY NO.	56	57	58	59	60	61	62	63	TOTAL
NUMBER	1	1	1	1	1	2	2	2	39 TEU
V.C.G. (M)	8.672	8.875	9.078	9.281	9.484	9.766			9.230
L.C.G. (M)	-39.725	-45.857	-51.989	-58.121	-64.253	-74.233	-76.695	-79.157	-57.178

BAY NO.		64		65					66					TOTAL
ROW. NO.		04	05	01	02	03	04	05	01	02	03	04	05	
NUMBER		4		10					10					24 TEU
V.C.G (M)	1ST TIER	19.995	19.944	19.944	19.995	20.015	19.995	19.944	19.944	19.995	20.015	19.995	19.944	21.285
	2ND TIER	22.610	22.559	22.559	22.610	22.631	22.610	22.559	22.559	22.610	22.631	22.610	22.559	
L.C.G. (M)		-20.201		-26.333					-32.465					-27.866

TRANSVERSE CENTER OF GRAVITY	BAY NUMBER	01 - 06	07 - 11	12 - 41	42 - 60	61 - 63	64 - 66
ROW NUMBER	01	0.0	3.066	6.132	5.811	3.066	5.003
	02		-3.066	0.0	1.167	-3.066	2.541
	03			-6.132	-4.966		0.0
	04						-2.541
	05						-5.003

KOREA SHIPBUILDING & ENGINEERING CORP.

STANDARD KSEC

KS -

REG. DATE:

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(17) Icing arrival

* The additional weights due to the formation of ice in the arrival condition are tabulated below ;

(a) Projected lateral part (15Kg/m^2)

ITEMS	AREA (M^2)	WEIGHT (TON)	KG	KG-MOMENT	L.C.G.	LCG-MOMENT
SIDE SHELL (UP TO 3.0M ABOVE S.L.W.L.)	2596	38.9	10.98	427.12	-0.51	-19.84
SUB TOTAL	2596	38.9		427.12		-19.84
EQUIP. & OTHERS	(5%) 130	2.0		(10%) 42.71		(10%) -1.98
TOTAL	2726	40.9	11.49	469.83	-0.53	-21.82

(b) Exposed part (30 Kg/m^2)

ITEMS	AREA (M^2)	WEIGHT (TON)	KG	KG-MOMENT	L.C.G.	LCG-MOMENT
MOORING DECK (AFT)	214	6.4	14.36	91.90	-77.44	-495.62
RECESS FOR ACCOMM. LADDER & PILOT TRUNK	66	2.0	13.49	26.98	-46.20	-92.40
BUNKER STATION	4	0.1	13.76	1.38	-54.60	-5.46
TOTAL	284	8.5	14.15	120.26	-69.82	-593.48

(c) Total weight

ITEMS	AREA (M^2)	WEIGHT (TON)	KG	KG-MOMENT	L.C.G.	KG-MOMENT
PROJECTED LATERAL	2726	40.9		469.83		-21.82
EXPOSED	284	8.5		120.26		-593.48
TOTAL		49.4	11.95	590.09	-12.46	-615.30

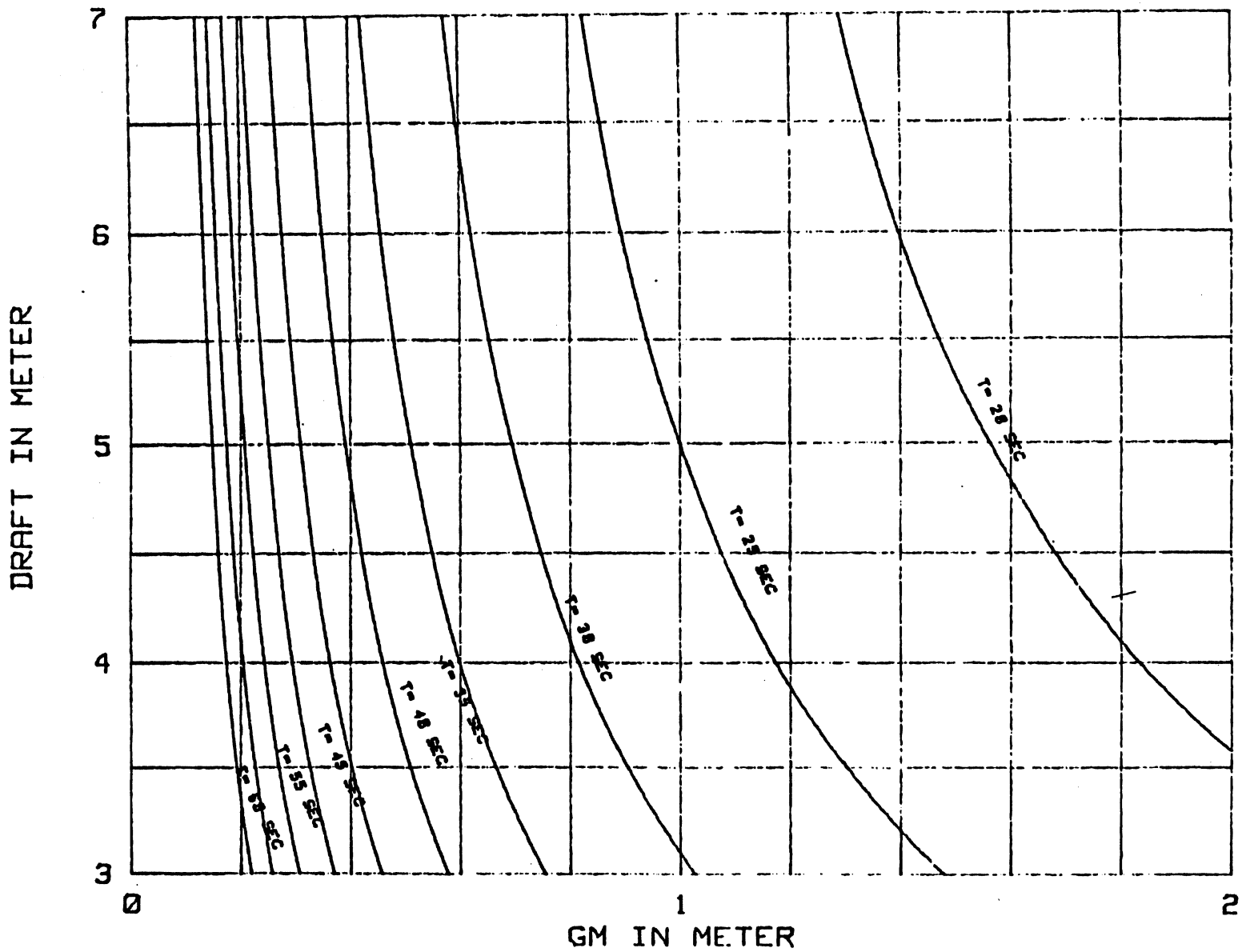
* NOTE :

1. The weight of ice is taken to be 30Kg/m^2 in the case of exposed weather deck and 15Kg/m^2 for projected lateral plane on both sides of the ship up to 8.0 Meters above the water line.
2. The weight of ice on non-continuous surface (i.e., equipment & others) is included by increasing 5% of the projected lateral plane area, and the static moment by increasing 10%.

(18) CURVES OF ROLLING PERIOD

(ORDINARY CONDITION)

KSEC



GM=SQUARE OF (2.01*Kb*B/T)
T: ROLLING PERIOD
B: BREADTH
Kb: RADIUS OF GYRATION
Kb=SQ. ROOT (0.125(CuCb+
1.1Cu(1-Cb)(Ha/D-2.2)+
(Ha/B)**2)
Ha=Dr+As/L
Dr: MLD DEPTH
As: SIDE REFLECTION AREA
L: Lpp
Au: UPPER DECK AREA
Cu=Au/(L*B)
Cb: BLOCK COEFFICIENT
D: DRAFT

NOTE;
THIS CURVE WAS DRAWN
ACCORDING TO ABOVE FORMULA.

(19) NOTES ON USE OF FREE SURFACE EFFECT

*** If a tank is empty or completely filled with the liquid, there is no moment due to the free surface effect.

The motion of the liquid in a tank which is partially full, reduces a ship's stability.

This motion results in an equivalent reduction in the metacentric height.

This effect referred to as "Loss in GM" or as "Virtual rise in K.G." is calculated as follows (i.e. free surface correction) ;

$$GGO = \frac{\Sigma (i \times S.G)}{\Delta} = \frac{\text{Sum of the free surface moment (Tons-M)}}{\text{Displacement of the ship (Tons)}}$$

Where,

i : The transverse moment of inertia of the free surface about its own neutral axis (M^4)

S.G. : Specific gravity of liquid with free surface ($Tons/M^3$)

*** Free surface effect of loaded tanks is taken into account as follows ;

a) The maximum value for all the consumable tanks.

b) The nil value for the ballast tanks when fully loaded.

(20) PROPELLER IMMERSION

Propeller immersion (I/D) is expressed as follows ;

$$I/D\ (\%) = \frac{\left\{(da - \frac{Trim}{LBP} \times La) - Hs\right\}}{D} \times 100$$

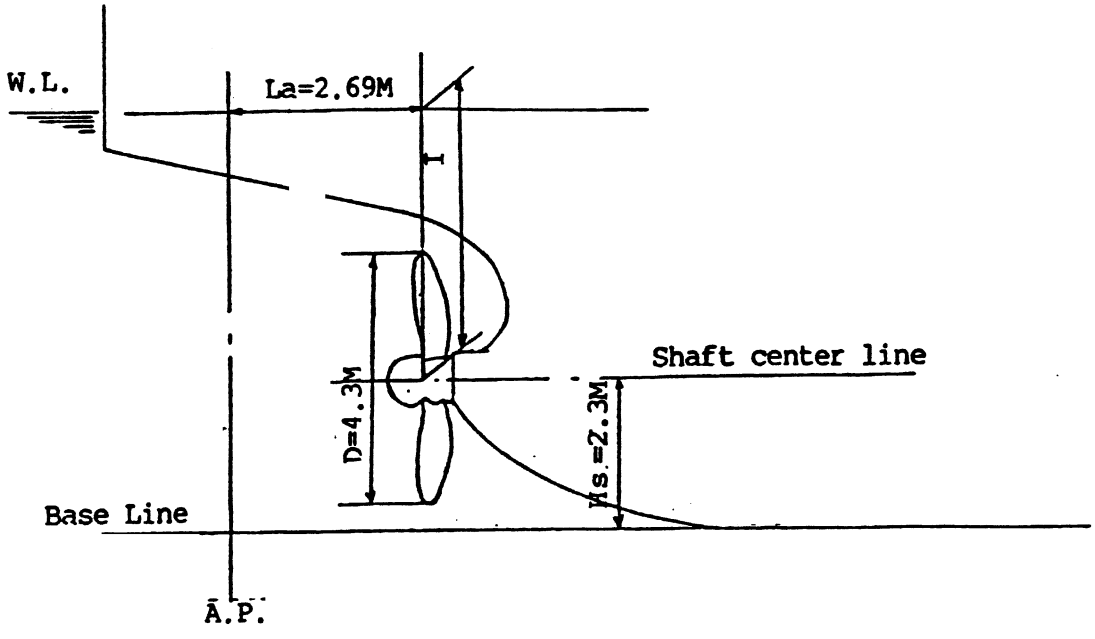
Where, I ; Vertical distance from shaft center line to water line at the propeller blade tip (M)

D ; Diameter of propeller (M)

da ; Aft draft (M)

La ; Horizontal distance from A.P. to propeller blade tip (M)

Hs ; Vertical distance from base line to shaft center line (M)



(21) METHOD OF CALCULATION FOR DISPLACEMENT AND DRAFT

(A) Displacement from measured draft

This method includes correction for mreasured drafts, correction for deflection, draft correction for trim, correction of displacement for specific gravity.

In the following typical example, above procedures will be shown in the same sequences and the result will be put down.

* The specific gravity of sea water in that area, for example, is 1.022 (tons/m^3) \ and the measured drafts (see page 23) are as follows ;

Draft / Side	Fore draft	Amidship draft	Aft draft
Port	4.98	5.65	6.48
Starboard	5.02	5.69	6.52
Mean	5.00	5.67	6.50

then,

1. Correction of measured draft.

Draft correction method and tables are tabulated on page 23~25 and in above example ;

apparent trim ; Ta = 6.50 - 5.00 = 1.50 M

stem correction ; $\delta df = (-3.6/145.2) \times (1.50)$
$= -0.037$

stern correction ; $\delta da = (8.4/145.2) \times (1.50)$
$= 0.087$

corrected fore draft; $df = 5.0 + \delta df$
$= 5.0 - 0.037 = 4.963$ M

corrected aft draft ; $da = 10.5 + \delta da$
$= 6.5 + 0.087 = 6.587$ M

2. Correction for deflection

Due to the deflection caused by hogging and sagging condition, the mean draft (dm) of this vessel is calculated according to the below formula.

$$dm = 1/8\ (df + 6 \times dM + da)$$
$$= 1/8\ (4.963 + 6 \times 5.670 + 6.587)$$
$$= 5.696\ M$$

3. Draft correction for trim

Actual trim ; Trim = da - df
= 6.587 - 4.963
= 1.624 M

L.C.F. at dm ; -5.011 M
(from hydrostatic table)

Correction for trim ; δdm = Trim x L.C.F/LBP
= -1.624 x (-5.011/157.2)
= 0.052 M

Equivalent draft (Deq.); dm + δdm
= 5.696 + 0.052
= 5.748 M

Displacement at Deq. ; 14346 Tons
(from hydrostatic table)

4. Correction of displacement for specific gravity.

Measured specific gravity : 1.022
Used one in hydrostatic table : 1.025

Therefore,
Actual displacement (Δ) : 14346 x 1.022/1.025
= 14304 Tons

(B) Draft calculation

For example,

Displacement (Δ) : 13820 Tons
L.C.G. : -2.500 M
K.G. : 10.500 M

Procedures to find the drafts at the above condition are as follows ;

1) Read the draft corresponding to the given displacement on the hydrostatic table. (i.e. d= 5.570M)

2) Pick up the following values at the draft 5.570 M

MCT : 26932.6 Ton-M/M
L.C.B. : -1.866 M
L.C.F. : -4.752 M

3) Trim calculation

$\overline{BG}$ = L.C.B. - L.C.G. = -1.866 - (-2.500)
= 0.634 M

$$TRIM = \frac{\overline{BG} \times \Delta}{MCT} = \frac{0.634 \times 13820}{26932.6} = 0.325 \text{ M}$$
(Trim by stern)

4) Draft

Draft at F.P. $= d - \frac{T}{L}\left(\frac{L}{2} - L.C.F\right)$

$= 5.570 - \frac{0.325}{157.2}\left(\frac{157.2}{2} + 4.752\right)$

$= 5.398$ M

Draft at A.P. $= d + \frac{T}{L}\left(\frac{L}{2} + L.C.F.\right)$

$= 5.570 + \frac{0.325}{157.2}\left(\frac{157.2}{2} - 4.752\right)$

$= 5.723$ M

(22) EXAMPLE SHOWING USE OF CROSS CURVES

Let's take the condition which draft is 5.289 M for example, and assume its KG should be 9.700 M and GGo 0.350 M.
(KM = 10.982 M)

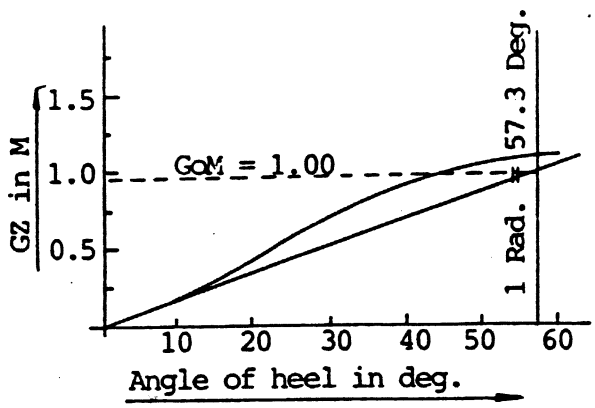
i.e., Displacement ; 13000 Tons

KGO = KG + GGo = 9.700 + 0.350 = 10.050 M

GZ = KN - KGo Sin θ

where, θ is angle of heel.

θ	Sin θ	KGo Sin θ	KN at 5.289 M	GZ
10°	0.1736	1.745	1.926	0.181
20°	0.3420	3.437	3.888	0.451
30°	0.5000	5.025	5.773	0.748
40°	0.6428	6.460	7.330	0.870
50°	0.7660	7.698	8.671	0.973
60°	0.8660	8.704	9.884	1.180



Q	Y	S	Y.S	Y	S	Y.S
0	0	1	0	0	1	0
10	0.181	3	0.543	0.181	4	0.724
20	0.451	3	1.353	0.451	2	0.902
30	0.748	1	0.748	0.748	4	2.992
40				0.870	1	0.870
		Σ	2.644		Σ	5.488

* AREA (0-30°) = 3/8 x 10 x Σ(Y.S) x π/180
= 3/8 x 10 x 2.644 x 1/57.3
= 0.173M-Radian

* AREA (0-40°) = 1/3 x 10 x Σ(Y.S) x π/180
= 1/3 x 10 x 5.488 x 1/57.3
= 0.319M-Radian

* AREA (30°-40°)= 0.319 - 0.173 = 0.146M-Radian

1. GENERAL, FILLING OF TANKS

All tanks of the INTERING System are to be filled with water to service level as long as the requirements for the stability are fulfilled.

It has to be ensured by suitable means (ballast operations) that the variation of ship's stability during one voyage - due to consumption of fuel and storages - is kept to a minimum. This is to make sure that the stabilizing effect of the operated tanks is sufficient for the "departure" and "arrival" condition (see item 5.5.1 - 5.5.4 of this manual.

2. CHECK OF STABILITY

Calculate the displacement and the initial metacentric height $\overline{GM}'_0$ of the actual "departure" and "arrival" condition. The $\overline{GM}'_0$ value must be corrected for all free surface effects including those INTERING tanks which are filled (open, U-shaped tank system).

Filled Tanks	Moment of Free Surface		Diagram
A	2436	tm	1
B	3826	tm	2
A+B	6262	tm	3

Avoid stability conditions leading to periods of roll shorter than 12.8 s, to which the tanks are not tuned.

Tanks which are not allowed to be filled because of excessive $\overline{GM}'$ reduction must be emptied before clearing port.

3. OPERATION OF TANKS

In case all tanks of the system are filled (ready for operation) check whether both or only one of the tanks shall be operated (Diagram).

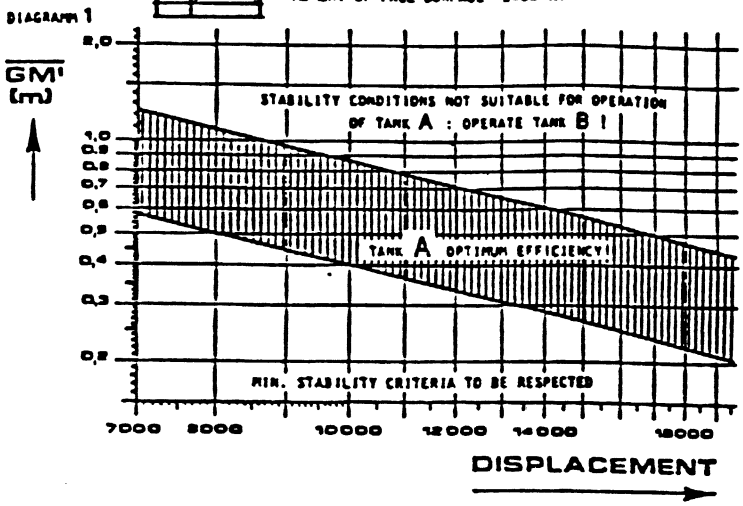
In case only one of two tanks is ready for operation refer to Diagram 1 or 2 and check whether the tank can be operated under optimum conditions. Otherwise refer to the information on the diagram.

For further explanations refer to Fig. 0-9B-D.

CONDITION OF THE INTERING SYSTEM:

TANK A FILLED TO SERVICE LEVEL
MOMENT OF FREE SURFACE 2436 TM

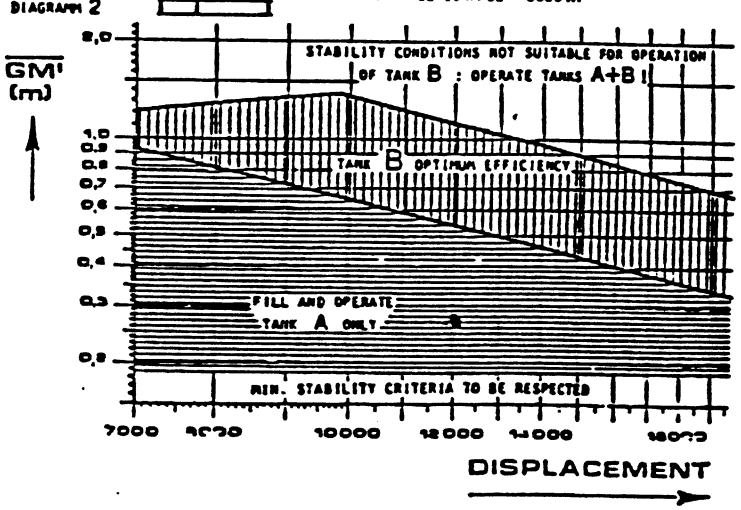
DIAGRAM 1



CONDITION OF THE INTERING SYSTEM:

TANK B FILLED TO SERVICE LEVEL
MOMENT OF FREE SURFACE 3826TM

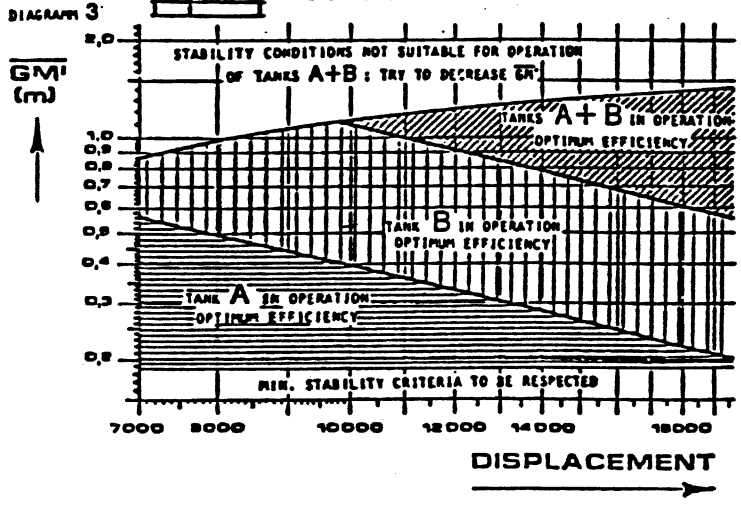
DIAGRAM 2



CONDITION OF THE INTERING SYSTEM:

TANK A + B FILLED TO SERVICE LEVEL
MOMENT OF FREE SURFACE 6262TM

DIAGRAM 3



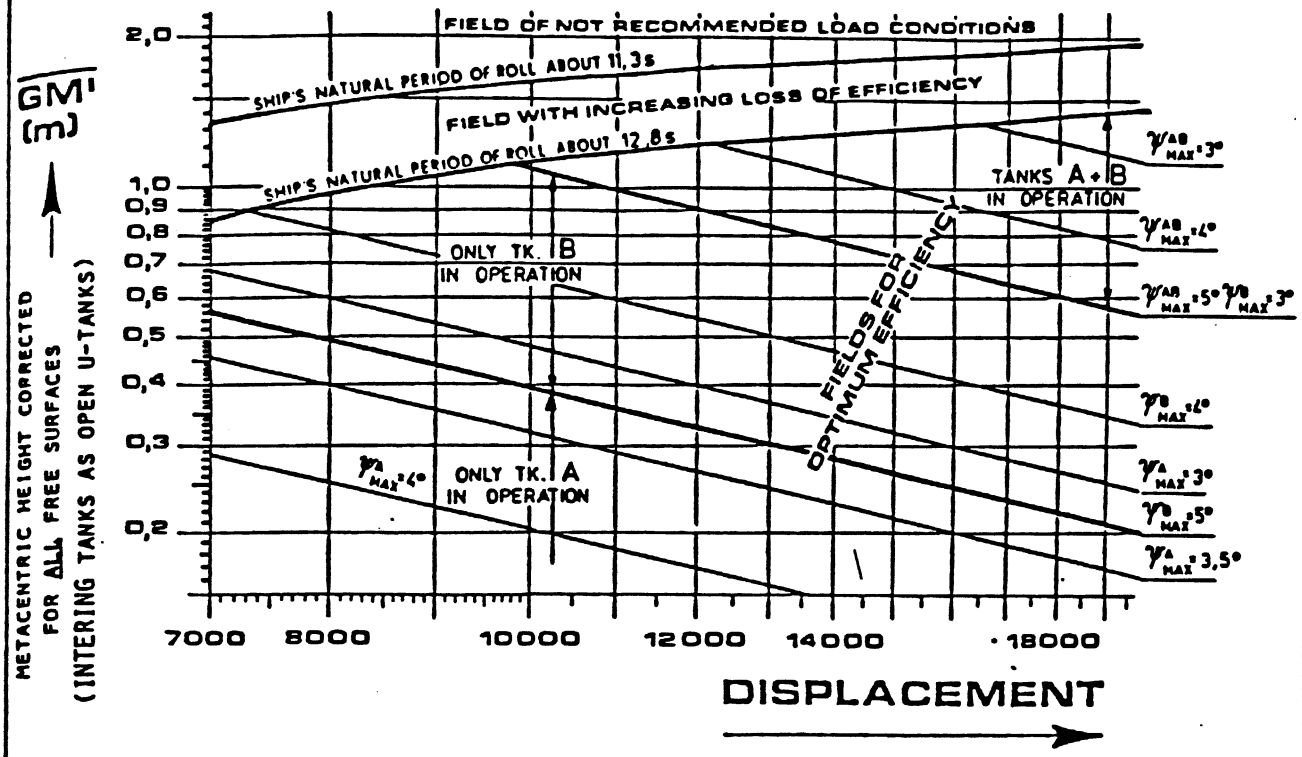
ATTENTION

$\overline{GM}'$ = METACENTRIC HEIGHT CORRECTED FOR ALL FREE SURFACES (INTERING TANKS AS OPEN U-TANKS)

MASSTAB		NUMMER	FIG. 0-9 A
GEZEICHN. Yd. SA	DATUM 25.2.87	GRUPPE	INTERING REF. 1387
GEPRÜFT		STROMPFAD	REF.
LAGERNUMMER			

(23) RECOMMENDATIONS FOR STABILIZER OPERATION

INTERING



Although the stabilizer capacity φ_{max} is a figure of efficiency, it is recommended by experience to operate the stabilizer in ranges not exceeding $\varphi_{max} = 5°$ wave slope by appropriate combination of tanks in service.

Basis for the above diagram are the following equations (see chapter 5):

$$\sin \varphi_{max} = \frac{M_{max}}{\Delta \cdot \overline{GM}' + I_B \cdot \gamma}$$

$$\text{Period } T\ [s] \approx \frac{0{,}75 \cdot B\ [m]}{\sqrt{\overline{GM}\ [m] + \frac{I_B \cdot \gamma}{\Delta}}}$$

$\overline{GM}'$ = metacentric height corrected for all free surfaces

M_{max} = 577 tm for Tank A

M_{max} = 893 tm for Tank B

M_{max} = 1470 tm for Tank A + Tank B

$I_B \cdot \gamma$ = 6262 tm for Tank A + Tank B

Both tanks filled to service level

Prescriptions for stability calculations:

For stability calculations, the plant has to be considered as an open U-shaped tank system.

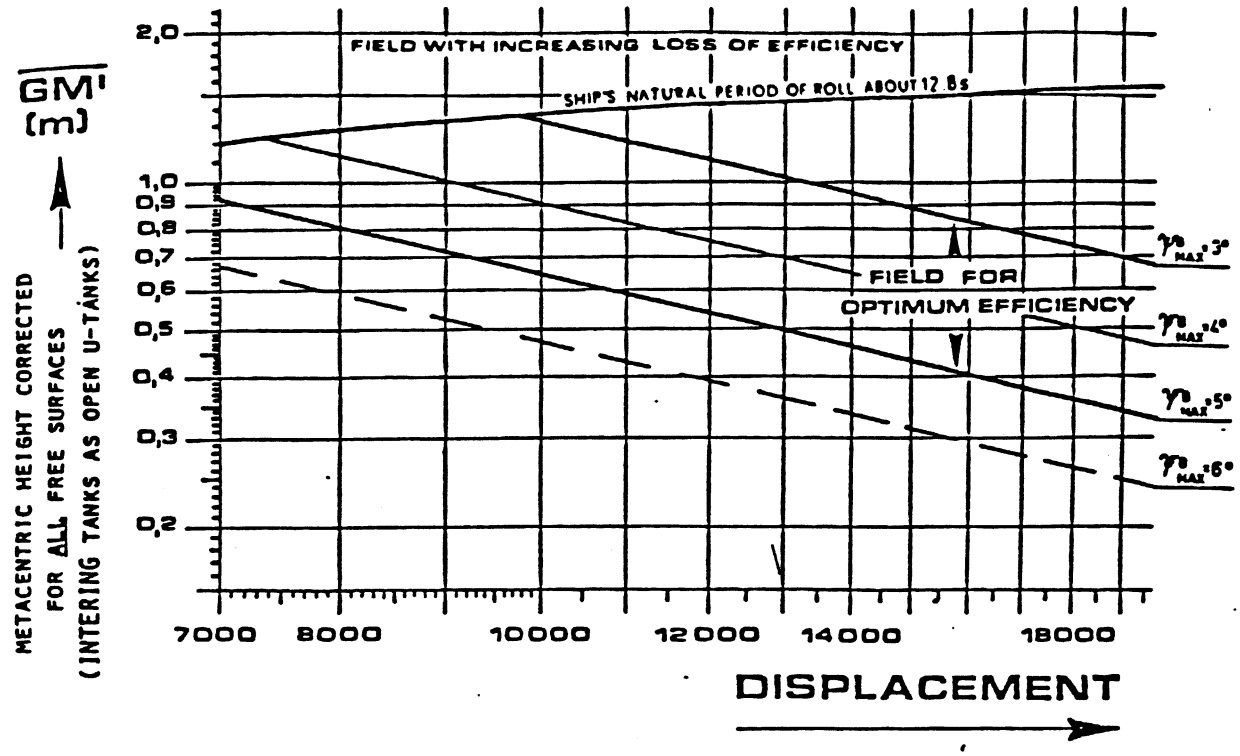
With respect to the free liquid surface of all tanks, including the tanks of the INTERING System, $\overline{GM}'$ must not become less than the minimum $\overline{GM}'$ which is requested by the classification societies and authorities.

For vessels with damage stability calculation, $\overline{GM}'$ must not become less than the minimum $\overline{GM}'$ which is required for the draught in question.

Those tanks which are not allowed to be filled to operating level because $\overline{GM}'$ reduction must be emptied before clearing port.

FIG. 0-9B

MASSTAB		RECOMMENDATIONS FOR STABILIZER OPERATION -TANKS "A" + "B" FILLED-	NUMMER
GEZEICHN. W. Sch	DATUM 24.2.87		GRUPPE / INTERING REF. 1387
GEPRÜFT			STROMPFAD / REF.
LAGERNUMMER			INTERING



Although the stabilizer capacity ψ max is a figure of efficiency, it is recommended by experience to operate the stabilizer in ranges not exceeding ψ max = 5° wave slope by appropriate combination of tanks in service.

Basis for the above diagram are the following equations (see chapter 5):

$$\sin \psi \text{ max} = \frac{M_{max}}{\Delta \cdot \overline{GM}' + I_B \cdot \gamma}$$

$$\text{Period T [s]} \approx \frac{0{,}75 \cdot B \text{ [m]}}{\sqrt{\overline{GM} \text{ [m]} + \frac{I_B \cdot \gamma}{\Delta}}}$$

$\overline{GM}'$ = metacentric height corrected for all free surfaces

M_{max} = 893 tm for Tank B

$I_B \cdot \gamma$ = 3826 tm for Tank B

Tank filled to service level

Prescriptions for stability calculations:

For stability calculations, the plant has to be considered as an open U-shaped tank system.

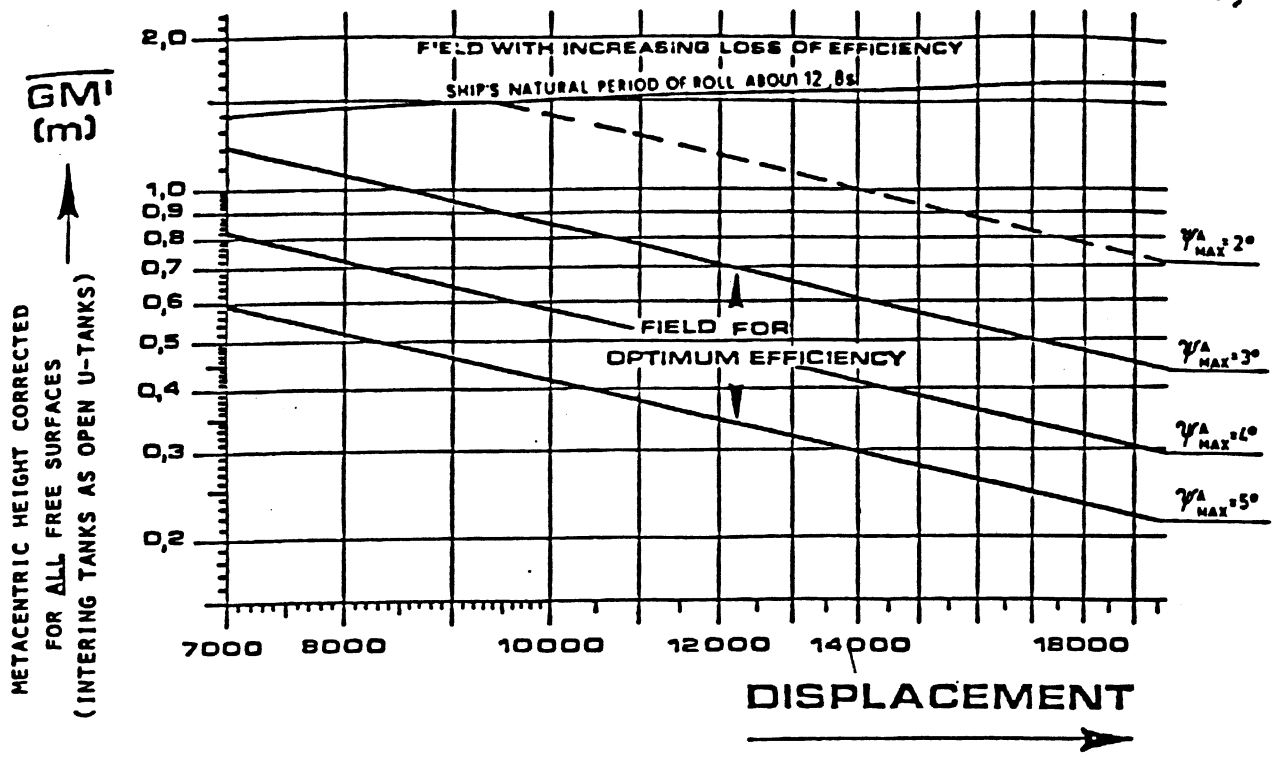
With respect to the free liquid surface of all tanks, including the tanks of the INTERING System, $\overline{GM}'$ must not become less than the minimum $\overline{GM}'$ which is requested by the classification societies and authorities.

For vessels with damage stability calculation, $\overline{GM}'$ must not become less than the minimum $\overline{GM}'$ which is required for the draught in question.

Those tanks which are not allowed to be filled to operating level because $\overline{GM}'$ reduction must be emptied before clearing port.

FIG. 0-9 C

MASSTAB	RECOMMENDATIONS FOR STABILIZER OPERATION -TANK "B" FILLED-	NUMMER	
GEZEICHN. Kl. s.A / DATUM 24.2.87		GRUPPE	INTERING REF.
GEPRÜFT Bi		STROMPFAD	REF.
LAGERNUMMER		INTERING	
A / B / C / D / E		ENTSTANDEN AUS:	



Although the stabilizer capacity ψ max is a figure of efficiency, it is recommended by experience to operate the stabilizer in ranges not exceeding ψ max = 5° wave slope by appropriate combination of tanks in service.

Basis for the above diagram are the following equations (see chapter 5):

$$\sin \psi \text{ max} = \frac{M_{max}}{\Delta \cdot \overline{GM}' + I_B \cdot \gamma}$$

$$\text{Period T [s]} \approx \frac{0{,}75 \cdot B \text{ [m]}}{\sqrt{\overline{GM} \text{ [m]} + \frac{I_B \cdot \gamma}{\Delta}}}$$

$\overline{GM}'$ = metacentric height corrected for all free surfaces

M_{max} = 577 tm for Tank A

$I_B \cdot \gamma$ = 2436 tm for Tank A
Tank filled to service level

Prescriptions for stability calculations:

For stability calculations, the plant has to be considered as an open U-shaped tank system.

With respect to the free liquid surface of all tanks, including the tanks of the INTERING System, $\overline{GM}'$ must not become less than the minimum $\overline{GM}'$ which is requested by the classification societies and authorities.

For vessels with damage stability calculation, $\overline{GM}'$ must not become less than the minimum $\overline{GM}'$ which is required for the draught in question.

Those tanks which are not allowed to be filled to operating level because $\overline{GM}'$ reduction must be emptied before clearing port.

FIG. 0-9 D

MASSTAB	RECOMMENDATIONS FOR STABILIZER OPERATION - TANK "A" FILLED -	NUMMER
GEZEICHN. Hl./sch. DATUM 12.2.87		GRUPPE / INTERING REF. 1387
GEPRÜFT		STROMPFAD / REF.
LAGERNUMMER		INTERING
A B C D E		ENTSTANDEN AUS:

(23) HYDROSTATIC TABLE

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]	DRAFT RFP : 3.180 [m]			
1 DRAUGHT EXTREME ...[m]:	3.200	3.200	3.200	3.200	3.200
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	7289.73	7298.87	7311.49	7327.87	7348.21
8 LCF FWD OF RFP ....[m]:	-1.002	-1.331	-1.731	-2.195	-2.714
10 LCB FWD OF RFP ....[m]:	0.408	-0.975	-2.363	-3.754	-5.147
11 VCB ABOVE RFP .....[m]:	1.682	1.681	1.686	1.696	1.711
12 KMT .....[m]:	13.627	13.662	13.701	13.743	13.787
16 MCT SW .....[tm/m]:	19984.5	20096.6	20201.9	20326.9	20495.0
18 TPM SW .....[t/m]:	2577.13	2581.99	2586.74	2592.37	2599.82

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]	DRAFT RFP : 3.230 [m]			
1 DRAUGHT EXTREME ...[m]:	3.250	3.250	3.250	3.250	3.250
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	7419.10	7428.55	7441.34	7457.93	7478.66
8 LCF FWD OF RFP ....[m]:	-1.035	-1.359	-1.755	-2.223	-2.758
10 LCB FWD OF RFP ....[m]:	0.384	-0.981	-2.352	-3.728	-5.105
11 VCB ABOVE RFP .....[m]:	1.709	1.708	1.712	1.722	1.737
12 KMT .....[m]:	13.502	13.537	13.577	13.619	13.664
16 MCT SW .....[tm/m]:	20063.9	20193.2	20313.5	20452.8	20636.0
18 TPM SW .....[t/m]:	2583.05	2588.47	2593.64	2599.71	2607.73

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]	DRAFT RFP : 3.280 [m]			
1 DRAUGHT EXTREME ...[m]:	3.300	3.300	3.300	3.300	3.300
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	7548.81	7558.59	7571.58	7588.40	7609.54
8 LCF FWD OF RFP ....[m]:	-1.069	-1.391	-1.783	-2.254	-2.80-
10 LCB FWD OF RFP ....[m]:	0.359	-0.987	-2.343	-3.703	-5.066
11 VCB ABOVE RFP .....[m]:	1.735	1.734	1.739	1.749	1.764
12 KMT .....[m]:	13.384	13.419	13.458	13.502	13.548
16 MCT SW .....[tm/m]:	20142.4	20289.4	20425.9	20580.5	20779.0
18 TPM SW .....[t/m]:	2588.92	2594.90	2600.55	2607.09	2615.69

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]	DRAFT RFP : 3.350 [m]			
1 DRAUGHT EXTREME ...[m]:	3.350	3.350	3.350	3.350	3.350
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	7678.83	7688.97	7702.20	7719.29	7740.86
8 LCF FWD OF RFP ....[m]:	-1.105	-1.425	-1.814	-2.289	-2.853
10 LCB FWD OF RFP ....[m]:	0.336	-0.994	-2.334	-3.681	-5.029
11 VCB ABOVE RFP .....[m]:	1.762	1.761	1.766	1.776	1.791
12 KMT .....[m]:	13.271	13.305	13.345	13.389	13.436
16 MCT SW .....[tm/m]:	20220.5	20385.1	20539.0	20710.2	20923.8
18 TPM SW .....[t/m]:	2594.73	2601.29	2607.45	2614.52	2623.68

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 3.380 [m]		
1 DRAUGHT EXTREME ...[m]:	3.400	3.400	3.400	3.400	3.400
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	7809.15	7819.66	7833.19	7850.58	7872.61
8 LCF FWD OF RFP ....[m]:	-1.144	-1.463	-1.850	-2.329	-2.904
10 LCB FWD OF RFP ....[m]:	0.312	-1.001	-2.326	-3.659	-4.995
11 VCB ABOVE RFP .....[m]:	1.788	1.788	1.792	1.803	1.817
12 KMT .....[m]:	13.162	13.197	13.237	13.281	13.329
16 MCT SW .....[tm/m]:	20298.5	20480.0	20652.6	20841.8	21070.5
18 TPM SW .....[t/m]:	2600.50	2607.62	2614.36	2622.01	2631.72

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 3.430 [m]		
1 DRAUGHT EXTREME ...[m]:	3.450	3.450	3.450	3.450	3.450
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	7939.75	7950.65	7964.53	7982.29	8004.77
8 LCF FWD OF RFP ....[m]:	-1.184	-1.505	-1.892	-2.372	-2.956
10 LCB FWD OF RFP ....[m]:	0.288	-1.008	-2.319	-3.639	-4.962
11 VCB ABOVE RFP .....[m]:	1.815	1.814	1.819	1.829	1.844
12 KMT .....[m]:	13.058	13.093	13.133	13.178	13.226
16 MCT SW .....[tm/m]:	20376.8	20574.0	20766.4	20975.3	21219.2
18 TPM SW .....[t/m]:	2606.23	2613.90	2621.27	2629.55	2639.81

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 3.480 [m]		
1 DRAUGHT EXTREME ...[m]:	3.500	3.500	3.500	3.500	3.500
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	8070.60	8081.92	8096.21	8114.40	8137.35
8 LCF FWD OF RFP ....[m]:	-1.226	-1.550	-1.939	-2.421	-3.009
10 LCB FWD OF RFP ....[m]:	0.264	-1.017	-2.313	-3.620	-4.971
11 VCB ABOVE RFP .....[m]:	1.842	1.841	1.846	1.856	1.871
12 KMT .....[m]:	12.957	12.992	13.032	13.078	13.127
16 MCT SW .....[tm/m]:	20455.8	20666.9	20880.4	21110.7	21369.8
18 TPM SW .....[t/m]:	2611.95	2620.12	2628.18	2637.16	2647.94

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 3.530 [m]		
1 DRAUGHT EXTREME ...[m]:	3.550	3.550	3.550	3.550	3.550
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	8201.70	8213.46	8228.23	8246.91	8270.34
8 LCF FWD OF RFP ....[m]:	-1.269	-1.599	-1.992	-2.475	-3.063
10 LCB FWD OF RFP ....[m]:	0.240	-1.026	-2.308	-3.602	-4.901
11 VCB ABOVE RFP .....[m]:	1.868	1.868	1.873	1.883	1.898
12 KMT .....[m]:	12.860	12.895	12.935	12.980	13.030
16 MCT SW .....[tm/m]:	20535.7	20758.6	20994.3	21248.0	21522.4
18 TPM SW .....[t/m]:	2617.67	2626.27	2635.09	2644.84	2656.11

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 3.580 [m]		
1 DRAUGHT EXTREME ...[m]:	3.600	3.600	3.600	3.600	3.600
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	8333.04	8345.24	8360.57	8379.82	8403.74
8 LCF FWD OF RFP ....[m]:	-1.314	-1.652	-2.050	-2.535	-3.117
10 LCB FWD OF RFP ....[m]:	0.215	-1.035	-2.304	-3.586	-4.873
11 VCB ABOVE RFP .....[m]:	1.895	1.895	1.900	1.910	1.925
12 KMT .....[m]:	12.765	12.801	12.841	12.886	12.936
16 MCT SW .....[tm/m]:	20617.2	20849.5	21108.2	21387.0	21676.6
18 TPM SW .....[t/m]:	2623.39	2632.38	2642.00	2652.57	2664.33

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 3.630 [m]		
1 DRAUGHT EXTREME ...[m]:	3.650	3.650	3.650	3.650	3.650
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	8464.63	8477.30	8493.24	8513.11	8537.53
8 LCF FWD OF RFP ....[m]:	-1.361	-1.709	-2.115	-2.599	-3.173
10 LCB FWD OF RFP ....[m]:	0.191	-1.046	-2.301	-3.570	-4.846
11 VCB ABOVE RFP .....[m]:	1.921	1.921	1.926	1.937	1.952
12 KMT .....[m]:	12.674	12.710	12.750	12.795	12.845
16 MCT SW .....[tm/m]:	20700.6	20940.4	21222.4	21527.0	21832.2
18 TPM SW .....[t/m]:	2629.14	2638.46	2648.91	2660.35	2672.57

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 3.680 [m]		
1 DRAUGHT EXTREME ...[m]:	3.700	3.700	3.700	3.700	3.700
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	8596.49	8609.64	8626.24	8646.78	8671.74
8 LCF FWD OF RFP ....[m]:	-1.410	-1.769	-2.183	-2.668	-3.271
10 LCB FWD OF RFP ....[m]:	0.166	-1.058	-2.299	-3.559	-4.821
11 VCB ABOVE RFP .....[m]:	1.948	1.948	1.953	1.964	1.979
12 KMT .....[m]:	12.585	12.621	12.661	12.706	12.757
16 MCT SW .....[tm/m]:	20786.5	21032.2	21336.9	21667.7	21988.7
18 TPM SW .....[t/m]:	2634.93	2644.55	2655.82	2668.14	2680.83

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 3.730 [m]		
1 DRAUGHT EXTREME ...[m]:	3.750	3.750	3.750	3.750	3.750
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	8728.62	8742.27	8759.58	8780.84	8806.34
8 LCF FWD OF RFP ....[m]:	-1.460	-1.832	-2.256	-2.740	-3.291
10 LCB FWD OF RFP ....[m]:	0.141	-1.070	-2.298	-3.541	-4.797
11 VCB ABOVE RFP .....[m]:	1.975	1.975	1.980	1.991	2.005
12 KMT .....[m]:	12.500	12.536	12.576	12.621	12.672
16 MCT SW .....[tm/m]:	20875.3	21125.8	21432.1	21808.4	22145.7
18 TPM SW .....[t/m]:	2640.78	2650.66	2662.74	2675.93	2689.08

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 3.780 (m)		
1 DRAUGHT EXTREME ...(m):	3.800	3.800	3.800	3.800	3.800
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	8861.04	8875.20	8893.24	8915.26	8941.35
8 LCF FWD OF RFP ....(m):	-1.511	-1.897	-2.331	-2.816	-3.353
10 LCB FWD OF RFP ....(m):	0.115	-1.082	-2.297	-3.529	-4.774
11 VCB ABOVE RFP .....(m):	2.001	2.002	2.007	2.017	2.032
12 KMT .....(m):	12.417	12.453	12.493	12.538	12.589
16 MCT SW .....(tm/m):	20967.7	21222.0	21568.1	21948.7	22302.8
18 TPM SW .....(t/m):	2646.72	2656.83	2669.67	2683.70	2697.33

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 3.830 (m)		
1 DRAUGHT EXTREME ...(m):	3.850	3.850	3.850	3.850	3.850
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	8993.76	9008.45	9027.25	9050.05	9076.77
8 LCF FWD OF RFP ....(m):	-1.565	-1.965	-2.409	-2.894	-3.419
10 LCB FWD OF RFP ....(m):	0.090	-1.096	-2.298	-3.518	-4.754
11 VCB ABOVE RFP .....(m):	2.028	2.028	2.034	2.044	2.059
12 KMT .....(m):	12.337	12.374	12.413	12.457	12.509
16 MCT SW .....(tm/m):	21064.1	21321.6	21685.2	22088.1	22459.5
18 TPM SW .....(t/m):	2652.76	2663.09	2676.61	2691.43	2705.55

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 3.880 (m)		
1 DRAUGHT EXTREME ...(m):	3.900	3.900	3.900	3.900	3.900
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	9126.80	9142.02	9161.59	9185.19	9212.59
8 LCF FWD OF RFP ....(m):	-1.619	-2.034	-2.489	-2.975	-3.489
10 LCB FWD OF RFP ....(m):	0.065	-1.110	-2.300	-3.508	-4.734
11 VCB ABOVE RFP .....(m):	2.055	2.055	2.061	2.071	2.087
12 KMT .....(m):	12.259	12.296	12.336	12.380	12.432
16 MCT SW .....(tm/m):	21165.1	21425.6	21803.5	22226.1	22615.5
18 TPM SW .....(t/m):	2658.92	2669.45	2683.57	2699.08	2713.74

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 3.930 (m)		
1 DRAUGHT EXTREME ...(m):	3.950	3.950	3.950	3.950	3.950
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	9260.16	9275.93	9296.26	9320.70	9348.81
8 LCF FWD OF RFP ....(m):	-1.675	-2.105	-2.570	-3.057	-3.564
10 LCB FWD OF RFP ....(m):	0.039	-1.125	-2.303	-3.500	-4.717
11 VCB ABOVE RFP .....(m):	2.081	2.082	2.088	2.098	2.114
12 KMT .....(m):	12.184	12.222	12.261	12.305	12.358
16 MCT SW .....(tm/m):	21271.1	21534.7	21923.2	22362.1	22770.3
18 TPM SW .....(t/m):	2665.21	2675.95	2690.54	2706.65	2721.88

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 3.980 [m]		
1 DRAUGHT EXTREME ...[m]:	4.000	4.000	4.000	4.000	4.000
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	9393.86	9410.20	9431.28	9456.55	9485.43
8 LCF FWD OF RFP ....[m]:	-1.733	-2.177	-2.651	-3.141	-3.643
10 LCB FWD OF RFP ....[m]:	0.013	-1.140	-2.308	-3.494	-4.701
11 VCB ABOVE RFP .....[m]:	2.108	2.109	2.115	2.126	2.141
12 KMT .....[m]:	12.112	12.149	12.189	12.233	12.287
16 MCT SW .....[tm/m]:	21382.6	21649.8	22044.6	22495.6	22923.6
18 TPM SW .....[t/m]:	2671.66	2682.61	2697.53	2714.12	2729.96

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.030 [m]		
1 DRAUGHT EXTREME ...[m]:	4.050	4.050	4.050	4.050	4.050
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	9527.92	9544.82	9566.64	9592.74	9622.46
8 LCF FWD OF RFP ....[m]:	-1.793	-2.250	-2.732	-3.225	-3.728
10 LCB FWD OF RFP ....[m]:	-0.013	-1.156	-2.313	-3.489	-4.686
11 VCB ABOVE RFP .....[m]:	2.135	2.136	2.142	2.153	2.168
12 KMT .....[m]:	12.042	12.080	12.119	12.164	12.218
16 MCT SW .....[tm/m]:	21500.1	21771.8	22167.9	22626.2	23074.9
18 TPM SW .....[t/m]:	2678.29	2689.47	2704.54	2721.45	2737.96

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.080 [m]		
1 DRAUGHT EXTREME ...[m]:	4.100	4.100	4.100	4.100	4.100
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	9662.33	9679.81	9702.35	9729.27	9759.89
8 LCF FWD OF RFP ....[m]:	-1.853	-2.323	-2.812	-3.310	-3.818
10 LCB FWD OF RFP ....[m]:	-0.038	-1.172	-2.320	-3.486	-4.674
11 VCB ABOVE RFP .....[m]:	2.161	2.162	2.169	2.180	2.195
12 KMT .....[m]:	11.975	12.012	12.052	12.097	12.152
16 MCT SW .....[tm/m]:	21623.5	21900.4	22293.3	22754.4	23224.4
18 TPM SW .....[t/m]:	2685.08	2696.50	2711.59	2728.68	2745.90

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.130 [m]		
1 DRAUGHT EXTREME ...[m]:	4.150	4.150	4.150	4.150	4.150
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	9797.09	9815.16	9838.40	9866.16	9897.72
8 LCF FWD OF RFP ....[m]:	-1.915	-2.397	-2.892	-3.395	-3.912
10 LCB FWD OF RFP ....[m]:	-0.064	-1.189	-2.328	-3.484	-4.662
11 VCB ABOVE RFP .....[m]:	2.188	2.189	2.196	2.207	2.222
12 KMT .....[m]:	11.910	11.947	11.987	12.033	12.089
16 MCT SW .....[tm/m]:	21752.0	22034.8	22421.2	22881.4	23372.2
18 TPM SW .....[t/m]:	2692.01	2703.70	2718.67	2735.83	2753.77

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.180 [m]		
1 DRAUGHT EXTREME ...[m]:	4.200	4.200	4.200	4.200	4.200
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	9932.22	9950.88	9974.82	10003.40	10035.94
8 LCF FWD OF RFP ....[m]:	-1.978	-2.471	-2.972	-3.482	-4.010
10 LCB FWD OF RFP ....[m]:	-0.090	-1.207	-2.336	-3.484	-4.653
11 VCB ABOVE RFP .....[m]:	2.215	2.216	2.223	2.234	2.249
12 KMT .....[m]:	11.847	11.885	11.925	11.972	12.028
16 MCT SW .....[tm/m]:	21884.9	22174.2	22552.0	23003.4	23518.9
18 TPM SW .....[t/m]:	2699.07	2711.02	2725.82	2742.95	2761.59

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.230 [m]		
1 DRAUGHT EXTREME ...[m]:	4.250	4.250	4.250	4.250	4.250
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	10067.70	10086.97	10111.60	10141.01	10174.55
8 LCF FWD OF RFP ....[m]:	-2.041	-2.545	-3.052	-3.569	-4.110
10 LCB FWD OF RFP ....[m]:	-0.116	-1.224	-2.346	-3.485	-4.645
11 VCB ABOVE RFP .....[m]:	2.242	2.243	2.250	2.261	2.277
12 KMT .....[m]:	11.787	11.824	11.865	11.913	11.970
16 MCT SW .....[tm/m]:	22021.4	22317.7	22686.0	23136.7	23664.8
18 TPM SW .....[t/m]:	2706.23	2718.46	2733.03	2750.08	2769.37

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.280 [m]		
1 DRAUGHT EXTREME ...[m]:	4.300	4.300	4.300	4.300	4.300
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	10203.5	10223.4	10248.7	10279.0	10313.6
8 LCF FWD OF RFP ....[m]:	-2.105	-2.619	-3.133	-3.658	-4.213
10 LCB FWD OF RFP ....[m]:	-0.142	-1.243	-2.357	-3.488	-4.638
11 VCB ABOVE RFP .....[m]:	2.268	2.270	2.277	2.288	2.304
12 KMT .....[m]:	11.728	11.766	11.807	11.856	11.914
16 MCT SW .....[tm/m]:	22160.8	22464.4	22823.6	23267.5	23810.1
18 TPM SW .....[t/m]:	2713.47	2725.97	2740.32	2757.26	2777.12

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.330 [m]		
1 DRAUGHT EXTREME ...[m]:	4.350	4.350	4.350	4.350	4.350
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	10339.7	10360.3	10386.3	10417.3	10452.9
8 LCF FWD OF RFP ....[m]:	-2.170	-2.694	-3.214	-3.748	-4.317
10 LCB FWD OF RFP ....[m]:	-0.169	-1.262	-2.369	-3.492	-4.633
11 VCB ABOVE RFP .....[m]:	2.295	2.297	2.304	2.315	2.331
12 KMT .....[m]:	11.672	11.710	11.752	11.801	11.860
16 MCT SW .....[tm/m]:	22302.5	22613.5	22965.0	23402.0	23955.4
18 TPM SW .....[t/m]:	2720.76	2733.54	2747.71	2764.52	2784.85

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.380 [m]		
1 DRAUGHT EXTREME ...[m]:	4.400	4.400	4.400	4.400	4.400
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	10476.31	10497.51	10524.21	10556.11	10592.71
8 LCF FWD OF RFP ....[m]:	-2.235	-2.767	-3.297	-3.840	-4.421
10 LCB FWD OF RFP ....[m]:	-0.195	-1.281	-2.381	-3.497	-4.629
11 VCB ABOVE RFP .....[m]:	2.322	2.324	2.331	2.343	2.358
12 KMT .....[m]:	11.618	11.656	11.698	11.749	11.809
16 MCT SW .....[tm/m]:	22445.71	22764.01	23110.81	23541.41	24100.91
18 TPM SW .....[t/m]:	2728.09	2741.13	2755.21	2771.92	2792.57

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.430 [m]		
1 DRAUGHT EXTREME ...[m]:	4.450	4.450	4.450	4.450	4.450
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	10613.21	10635.01	10662.41	10695.21	10732.91
8 LCF FWD OF RFP ....[m]:	-2.299	-2.841	-3.380	-3.934	-4.525
10 LCB FWD OF RFP ....[m]:	-0.222	-1.301	-2.394	-3.503	-4.627
11 VCB ABOVE RFP .....[m]:	2.349	2.351	2.358	2.370	2.386
12 KMT .....[m]:	11.566	11.604	11.647	11.698	11.759
16 MCT SW .....[tm/m]:	22589.61	22915.21	23261.11	23687.11	24247.01
18 TPM SW .....[t/m]:	2735.42	2748.73	2762.83	2779.48	2800.29

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.480 [m]		
1 DRAUGHT EXTREME ...[m]:	4.500	4.500	4.500	4.500	4.500
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	10750.51	10773.01	10801.11	10834.71	10873.41
8 LCF FWD OF RFP ....[m]:	-2.3[illegible]	-2.91[illegible]	-3.[illegible]	-4.030	-4.628
10 LCB FWD OF RFP ....[m]:	-0.249	-1.321	-2.408	-3.510	-4.626
11 VCB ABOVE RFP .....[m]:	2.376	2.378	2.385	2.397	2.413
12 KMT .....[m]:	11.516	11.554	11.598	11.650	11.711
16 MCT SW .....[tm/m]:	22733.61	23066.11	23416.41	23840.21	24394.11
18 TPM SW .....[t/m]:	2742.74	2756.31	2770.59	2787.25	2808.03

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.530 [m]		
1 DRAUGHT EXTREME ...[m]:	4.550	4.550	4.550	4.550	4.550
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	10888.11	10911.31	10940.21	10974.71	11014.31
8 LCF FWD OF RFP ....[m]:	-2.428	-2.986	-3.552	-4.129	-4.729
10 LCB FWD OF RFP ....[m]:	-0.276	-1.342	-2.423	-3.518	-4.627
11 VCB ABOVE RFP .....[m]:	2.403	2.405	2.412	2.424	2.441
12 KMT .....[m]:	11.467	11.506	11.551	11.604	11.665
16 MCT SW .....[tm/m]:	22876.91	23215.91	23576.91	24001.91	24542.51
18 TPM SW .....[t/m]:	2750.03	2763.83	2778.49	2795.27	2815.79

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 4.500 (m)		
1 DRAUGHT EXTREME ...(m):	4.600	4.600	4.600	4.600	4.600
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	11026.1	11049.9	11079.7	11115.0	11155.6
8 LCF FWD OF RFP ....(m):	-2.492	-3.058	-3.641	-4.229	-4.829
10 LCB FWD OF RFP ....(m):	-0.304	-1.363	-2.438	-3.527	-4.629
11 VCB ABOVE RFP .....(m):	2.430	2.432	2.439	2.452	2.468
12 KMT .....(m):	11.420	11.459	11.506	11.559	11.620
16 MCT SW .....(tm/m):	23019.8	23364.8	23742.4	24172.1	24693.9
18 TPM SW .....(t/m):	2757.28	2771.31	2786.52	2803.54	2823.62

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 4.650 (m)		
1 DRAUGHT EXTREME ...(m):	4.650	4.650	4.650	4.650	4.650
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	11164.5	11189.0	11219.5	11255.8	11297.3
8 LCF FWD OF RFP ....(m):	-2.556	-3.129	-3.730	-4.331	-4.930
10 LCB FWD OF RFP ....(m):	-0.331	-1.385	-2.454	-3.537	-4.632
11 VCB ABOVE RFP .....(m):	2.457	2.459	2.467	2.479	2.495
12 KMT .....(m):	11.375	11.425	11.462	11.517	11.578
16 MCT SW .....(tm/m):	23163.0	23513.7	23912.0	24349.5	24850.5
18 TPM SW .....(t/m):	2764.54	2778.77	2794.67	2812.01	2831.59

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 4.680 (m)		
1 DRAUGHT EXTREME ...(m):	4.700	4.700	4.700	4.700	4.700
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	11303.2	11328.4	11359.8	11396.9	11439.4
8 LCF FWD OF RFP ....(m):	-2.621	-3.201	-3.820	-4.475	-5.133
10 LCB FWD OF RFP ....(m):	-0.360	-1.407	-2.471	-3.547	-4.636
11 VCB ABOVE RFP .....(m):	2.484	2.486	2.494	2.506	2.523
12 KMT .....(m):	11.332	11.372	11.421	11.476	11.537
16 MCT SW .....(tm/m):	23307.4	23663.4	24084.8	24533.2	25014.6
18 TPM SW .....(t/m):	2771.81	2786.24	2802.90	2820.66	2839.78

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 4.750 (m)		
1 DRAUGHT EXTREME ...(m):	4.750	4.750	4.750	4.750	4.750
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	11442.3	11468.3	11500.5	11538.5	11581.9
8 LCF FWD OF RFP ....(m):	-2.687	-3.274	-3.911	-4.540	-5.141
10 LCB FWD OF RFP ....(m):	-0.388	-1.430	-2.488	-3.559	-4.642
11 VCB ABOVE RFP .....(m):	2.511	2.513	2.521	2.534	2.550
12 KMT .....(m):	11.290	11.331	11.381	11.436	11.498
16 MCT SW .....(tm/m):	23453.9	23814.8	24259.9	24721.8	25188.5
18 TPM SW .....(t/m):	2779.13	2793.75	2811.18	2829.45	2848.26

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HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.780 [m]		
1 DRAUGHT EXTREME ...[m]:	4.800	4.800	4.800	4.800	4.800
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	11581.8	11608.5	11641.6	11680.5	11724.9
8 LCF FWD OF RFP ....[m]:	-2.754	-3.348	-4.001	-4.645	-5.255
10 LCB FWD OF RFP ....[m]:	-0.416	-1.453	-2.505	-3.572	-4.650
11 VCB ABOVE RFP .....[m]:	2.538	2.540	2.548	2.561	2.578
12 KMT .....[m]:	11.250	11.292	11.343	11.399	11.460
16 MCT SW .....[tm/m]:	23603.3	23968.8	24436.5	24914.3	25374.7
18 TPM SW .....[t/m]:	2786.52	2801.32	2819.50	2838.35	2857.10

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.830 [m]		
1 DRAUGHT EXTREME ...[m]:	4.850	4.850	4.850	4.850	4.850
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	11721.7	11749.1	11783.0	11822.9	11868.4
8 LCF FWD OF RFP ....[m]:	-2.822	-3.423	-4.090	-4.751	-5.377
10 LCB FWD OF RFP ....[m]:	-0.445	-1.476	-2.524	-3.585	-4.659
11 VCB ABOVE RFP .....[m]:	2.565	2.568	2.576	2.589	2.606
12 KMT .....[m]:	11.212	11.254	11.306	11.363	11.425
16 MCT SW .....[tm/m]:	23756.4	24126.2	24613.8	25109.5	25575.4
18 TPM SW .....[t/m]:	2794.01	2808.98	2827.83	2847.32	2866.37

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.880 [m]		
1 DRAUGHT EXTREME ...[m]:	4.900	4.900	4.900	4.900	4.900
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	11861.9	11890.1	11924.9	11965.8	12012.4
8 LCF FWD OF RFP ....[m]:	-2.893	-3.501	-4.179	-4.857	-5.509
10 LCB FWD OF RFP ....[m]:	-0.474	-1.500	-2.543	-3.599	-4.669
11 VCB ABOVE RFP .....[m]:	2.592	2.595	2.603	2.616	2.633
12 KMT .....[m]:	11.175	11.218	11.270	11.328	11.392
16 MCT SW .....[tm/m]:	23914.0	24288.1	24790.8	25306.3	25793.0
18 TPM SW .....[t/m]:	2801.62	2816.76	2836.13	2856.32	2876.15

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.930 [m]		
1 DRAUGHT EXTREME ...[m]:	4.950	4.950	4.950	4.950	4.950
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	12002.6	12031.5	12067.2	12109.1	12156.9
8 LCF FWD OF RFP ....[m]:	-2.967	-3.580	-4.266	-4.962	-5.653
10 LCB FWD OF RFP ....[m]:	-0.504	-1.524	-2.562	-3.614	-4.681
11 VCB ABOVE RFP .....[m]:	2.619	2.622	2.630	2.644	2.661
12 KMT .....[m]:	11.139	11.183	11.236	11.295	11.361
16 MCT SW .....[tm/m]:	24077.0	24455.2	24966.8	25503.5	26029.8
18 TPM SW .....[t/m]:	2809.38	2824.69	2844.39	2865.33	2886.51

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 4.990 [m]		
1 DRAUGHT EXTREME ...[m]:	5.000	5.000	5.000	5.000	5.000
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	12143.6	12173.3	12209.9	12252.8	12301.9
8 LCF FWD OF RFP ....[m]:	-3.043	-3.663	-4.351	-5.066	-5.810
10 LCB FWD OF RFP ....[m]:	-0.533	-1.549	-2.583	-3.631	-4.694
11 VCB ABOVE RFP .....[m]:	2.646	2.649	2.658	2.671	2.689
12 KMT .....[m]:	11.105	11.150	11.203	11.263	11.332
16 MCT SW .....[tm/m]:	24246.3	24629.4	25140.8	25699.9	26288.1
18 TPM SW .....[t/m]:	2817.32	2832.78	2852.58	2874.31	2897.52

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.030 [m]		
1 DRAUGHT EXTREME ...[m]:	5.050	5.050	5.050	5.050	5.050
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	12285.1	12315.5	12353.0	12397.0	12447.5
8 LCF FWD OF RFP ....[m]:	-3.123	-3.749	-4.433	-5.170	-5.983
10 LCB FWD OF RFP ....[m]:	-0.563	-1.575	-2.603	-3.647	-4.708
11 VCB ABOVE RFP .....[m]:	2.673	2.677	2.685	2.699	2.716
12 KMT .....[m]:	11.073	11.118	11.171	11.233	11.305
16 MCT SW .....[tm/m]:	24422.6	24803.6	25312.1	25894.5	26570.1
18 TPM SW .....[t/m]:	2825.45	2841.08	2860.67	2883.22	2909.24

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.080 [m]		
1 DRAUGHT EXTREME ...[m]:	5.100	5.100	5.100	5.100	5.100
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	12426.9	12458.2	12496.5	12541.6	12593.6
8 LCF FWD OF RFP ....[m]:	-3.206	-3.838	-4.515	-5.234	-6.170
10 LCB FWD OF RFP ....[m]:	-0.593	-1.600	-2.625	-3.665	-4.725
11 VCB ABOVE RFP .....[m]:	2.700	2.704	2.713	2.726	2.744
12 KMT .....[m]:	11.041	11.087	11.141	11.204	11.280
16 MCT SW .....[tm/m]:	24605.5	24995.7	25482.1	26089.3	26875.4
18 TPM SW .....[t/m]:	2833.76	2849.56	2868.71	2892.12	2921.67

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.130 [m]		
1 DRAUGHT EXTREME ...[m]:	5.150	5.150	5.150	5.150	5.150
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	12569.2	12601.2	12640.5	12686.8	12740.4
8 LCF FWD OF RFP ....[m]:	-3.291	-3.930	-4.592	-5.381	-6.371
10 LCB FWD OF RFP ....[m]:	-0.624	-1.627	-2.647	-3.684	-4.743
11 VCB ABOVE RFP .....[m]:	2.727	2.731	2.740	2.754	2.772
12 KMT .....[m]:	11.012	11.058	11.111	11.176	11.257
16 MCT SW .....[tm/m]:	24793.7	25188.8	25653.7	26288.1	27201.8
18 TPM SW .....[t/m]:	2842.22	2858.22	2876.78	2901.14	2934.72

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.180 [m]		
1 DRAUGHT EXTREME ...[m]:	5.200	5.200	5.200	5.200	5.200
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	12711.9	12744.7	12784.9	12832.4	12887.8
8 LCF FWD OF RFP ....[m]:	-3.378	-4.024	-4.681	-5.493	-6.584
10 LCB FWD OF RFP ....[m]:	-0.655	-1.653	-2.670	-3.704	-4.762
11 VCB ABOVE RFP .....[m]:	2.754	2.759	2.768	2.782	2.800
12 KMT .....[m]:	10.983	11.029	11.083	11.150	11.237
16 MCT SW .....[tm/m]:	24986.0	25387.0	25829.8	26495.1	27546.9
18 TPM SW .....[t/m]:	2850.80	2867.02	2884.98	2910.39	2948.31

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.230 [m]		
1 DRAUGHT EXTREME ...[m]:	5.250	5.250	5.250	5.250	5.250
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	12854.9	12888.6	12929.7	12978.5	13035.8
8 LCF FWD OF RFP ....[m]:	-3.465	-4.120	-4.770	-5.612	-6.806
10 LCB FWD OF RFP ....[m]:	-0.686	-1.681	-2.693	-3.725	-4.784
11 VCB ABOVE RFP .....[m]:	2.782	2.786	2.795	2.809	2.828
12 KMT .....[m]:	10.955	11.002	11.056	11.125	11.218
16 MCT SW .....[tm/m]:	25181.1	25589.5	26013.5	26714.1	27908.4
18 TPM SW .....[t/m]:	2859.44	2875.94	2893.39	2919.99	2962.37

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.280 [m]		
1 DRAUGHT EXTREME ...[m]:	5.300	5.300	5.300	5.300	5.300
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	12998.4	13033.0	13075.0	13125.2	13184.5
8 LCF FWD OF RFP ....[m]:	-3.553	-4.217	-4.886	-5.743	-7.036
10 LCB FWD OF RFP ....[m]:	-0.717	-1.708	-2.717	-3.748	-4.807
11 VCB ABOVE RFP .....[m]:	2.809	2.813	2.823	2.837	2.857
12 KMT .....[m]:	10.929	10.977	11.031	11.102	11.200
16 MCT SW .....[tm/m]:	25377.7	25795.6	26207.5	26949.2	28283.8
18 TPM SW .....[t/m]:	2868.12	2884.96	2902.12	2930.06	2976.82

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.330 [m]		
1 DRAUGHT EXTREME ...[m]:	5.350	5.350	5.350	5.350	5.350
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	13142.3	13177.7	13220.8	13272.4	13333.9
8 LCF FWD OF RFP ....[m]:	-3.640	-4.316	-4.970	-5.886	-7.272
10 LCB FWD OF RFP ....[m]:	-0.748	-1.736	-2.742	-3.771	-4.832
11 VCB ABOVE RFP .....[m]:	2.836	2.841	2.850	2.865	2.885
12 KMT .....[m]:	10.904	10.952	11.007	11.081	11.185
16 MCT SW .....[tm/m]:	25574.5	26004.2	26415.0	27204.5	28671.0
18 TPM SW .....[t/m]:	2876.79	2894.05	2911.24	2940.72	2991.57

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.380 [m]		
1 DRAUGHT EXTREME ...[m]:	5.400	5.400	5.400	5.400	5.400
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	13286.61	13322.91	13367.11	13420.31	13484.11
8 LCF FWD OF RFP ....[m]:	-3.725	-4.415	-5.085	-6.044	-7.512
10 LCB FWD OF RFP ....[m]:	-0.780	-1.765	-2.768	-3.796	-4.860
11 VCB ABOVE RFP .....[m]:	2.863	2.868	2.878	2.893	2.913
12 KMT .....[m]:	10.880	10.929	10.984	11.061	11.171
16 MCT SW .....[tm/m]:	25770.21	26214.61	26638.81	27483.91	29067.41
18 TPM SW .....[t/m]:	2885.421	2903.191	2920.851	2952.091	3006.551

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.430 [m]		
1 DRAUGHT EXTREME ...[m]:	5.450	5.450	5.450	5.450	5.450
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	13431.41	13468.61	13513.81	13568.71	13635.01
8 LCF FWD OF RFP ....[m]:	-3.808	-4.514	-5.212	-6.221	-7.755
10 LCB FWD OF RFP ....[m]:	-0.812	-1.794	-2.795	-3.823	-4.889
11 VCB ABOVE RFP .....[m]:	2.891	2.896	2.906	2.921	2.942
12 KMT .....[m]:	10.857	10.907	10.963	11.044	11.158
16 MCT SW .....[tm/m]:	25963.51	26426.01	26881.91	27791.51	29470.81
18 TPM SW .....[t/m]:	2893.971	2912.351	2931.041	2964.291	3021.681

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.480 [m]		
1 DRAUGHT EXTREME ...[m]:	5.500	5.500	5.500	5.500	5.500
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	13576.51	13614.71	13661.11	13717.81	13786.71
8 LCF FWD OF RFP ....[m]:	-3.888	-4.613	-5.354	-6.418	-7.998
10 LCB FWD OF RFP ....[m]:	-0.844	-1.824	-2.822	-3.851	-4.921
11 VCB ABOVE RFP .....[m]:	2.918	2.923	2.933	2.949	2.970
12 KMT .....[m]:	10.836	10.886	10.944	11.029	11.147
16 MCT SW .....[tm/m]:	26153.21	26637.41	27147.31	28131.31	29878.81
18 TPM SW .....[t/m]:	2902.401	2921.511	2941.911	2977.451	3036.871

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.530 [m]		
1 DRAUGHT EXTREME ...[m]:	5.550	5.550	5.550	5.550	5.550
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	13722.11	13761.31	13809.01	13867.61	13939.21
8 LCF FWD OF RFP ....[m]:	-3.965	-4.712	-5.512	-6.637	-8.240
10 LCB FWD OF RFP ....[m]:	-0.877	-1.854	-2.851	-3.881	-4.956
11 VCB ABOVE RFP .....[m]:	2.945	2.951	2.961	2.977	2.999
12 KMT .....[m]:	10.815	10.866	10.927	11.014	11.137
16 MCT SW .....[tm/m]:	26338.11	26848.11	27437.81	28506.91	30289.11
18 TPM SW .....[t/m]:	2910.681	2930.641	2953.521	2991.671	3052.061

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)	DRAFT RFP : 5.580 (m)			
1 DRAUGHT EXTREME ...(m):	5.600	5.600	5.600	5.600	5.600
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	13868.1	13908.3	13957.3	14018.0	14092.5
8 LCF FWD OF RFP ....(m):	-4.039	-4.811	-5.687	-6.878	-8.479
10 LCB FWD OF RFP ....(m):	-0.910	-1.884	-2.880	-3.912	-4.992
11 VCB ABOVE RFP .....(m):	2.973	2.978	2.989	3.005	3.027
12 KMT .....(m):	10.795	10.847	10.911	11.003	11.128
16 MCT SW .....(tm/m):	26519.8	27060.0	27752.9	28915.8	30698.9
18 TPM SW .....(t/m):	2918.85	2939.80	2965.88	3006.86	3067.13

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)	DRAFT RFP : 5.630 (m)			
1 DRAUGHT EXTREME ...(m):	5.650	5.650	5.650	5.650	5.650
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	14014.6	14055.8	14106.3	14169.1	14246.6
8 LCF FWD OF RFP ....(m):	-4.112	-4.913	-5.875	-7.134	-8.713
10 LCB FWD OF RFP ....(m):	-0.943	-1.916	-2.911	-3.945	-5.031
11 VCB ABOVE RFP .....(m):	3.000	3.006	3.017	3.033	3.056
12 KMT .....(m):	10.776	10.830	10.897	10.993	11.120
16 MCT SW .....(tm/m):	26701.6	27276.3	28090.0	29350.8	31104.8
18 TPM SW .....(t/m):	2927.02	2949.09	2978.89	3022.81	3082.01

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)	DRAFT RFP : 5.680 (m)			
1 DRAUGHT EXTREME ...(m):	5.700	5.700	5.700	5.700	5.700
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	14161.5	14203.8	14255.9	14321.0	14401.4
8 LCF FWD OF RFP ....(m):	-4.187	-5.020	-6.075	-7.401	-8.937
10 LCB FWD OF RFP ....(m):	-0.977	-1.947	-2.943	-3.980	-5.072
11 VCB ABOVE RFP .....(m):	3.028	3.034	3.045	3.062	3.085
12 KMT .....(m):	10.758	10.813	10.885	10.984	11.113
16 MCT SW .....(tm/m):	26887.2	27500.7	28446.5	29804.5	31503.8
18 TPM SW .....(t/m):	2935.28	2958.60	2992.46	3039.27	3096.59

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)	DRAFT RFP : 5.730 (m)			
1 DRAUGHT EXTREME ...(m):	5.750	5.750	5.750	5.750	5.750
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	14308.8	14352.4	14406.1	14473.5	14556.9
8 LCF FWD OF RFP ....(m):	-4.267	-5.134	-6.285	-7.674	-9.155
10 LCB FWD OF RFP ....(m):	-1.011	-1.980	-2.976	-4.016	-5.114
11 VCB ABOVE RFP .....(m):	3.055	3.061	3.073	3.090	3.114
12 KMT .....(m):	10.741	10.798	10.874	10.977	11.106
16 MCT SW .....(tm/m):	27080.1	27736.8	28819.4	30269.8	31892.6
18 TPM SW .....(t/m):	2943.75	2968.44	3006.49	3056.03	3110.77

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 5.780 (m)		
1 DRAUGHT EXTREME ...(m):	5.800	5.800	5.800	5.800	5.800
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	14456.7	14501.4	14557.0	14626.8	14713.1
8 LCF FWD OF RFP ....(m):	-4.353	-5.257	-6.503	-7.947	-9.359
10 LCB FWD OF RFP ....(m):	-1.045	-2.014	-3.010	-4.055	-5.158
11 VCB ABOVE RFP .....(m):	3.083	3.089	3.101	3.119	3.143
12 KMT .....(m):	10.725	10.785	10.865	10.971	11.099
16 MCT SW .....(tm/m):	27283.7	27987.9	29206.2	30739.2	32268.1
18 TPM SW .....(t/m):	2952.52	2978.70	3020.90	3072.85	3124.46

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 5.830 (m)		
1 DRAUGHT EXTREME ...(m):	5.850	5.850	5.850	5.850	5.850
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	14605.0	14651.1	14708.5	14780.9	14870.0
8 LCF FWD OF RFP ....(m):	-4.447	-5.391	-6.727	-8.216	-9.550
10 LCB FWD OF RFP ....(m):	-1.080	-2.048	-3.047	-4.095	-5.203
11 VCB ABOVE RFP .....(m):	3.110	3.117	3.129	3.147	3.172
12 KMT .....(m):	10.711	10.772	10.857	10.966	11.092
16 MCT SW .....(tm/m):	27501.7	28257.8	29604.1	31205.4	32627.0
18 TPM SW .....(t/m):	2961.71	2989.50	3035.59	3089.50	3137.55

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 5.880 (m)		
1 DRAUGHT EXTREME ...(m):	5.900	5.900	5.900	5.900	5.900
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	14753.8	14801.3	14860.8	14935.7	15027.5
8 LCF FWD OF RFP ....(m):	-4.553	-5.529	-6.954	-8.474	-9.724
10 LCB FWD OF RFP ....(m):	-1.115	-2.083	-3.084	-4.137	-5.250
11 VCB ABOVE RFP .....(m):	3.138	3.145	3.157	3.176	3.201
12 KMT .....(m):	10.697	10.761	10.850	10.961	11.085
16 MCT SW .....(tm/m):	27737.6	28549.8	30010.3	31661.1	32966.2
18 TPM SW .....(t/m):	2971.41	3000.94	3050.47	3105.74	3149.96

HYDROSTATICS (SPLINE)	HEEL : 0.000 (Deg)		DRAFT RFP : 5.930 (m)		
1 DRAUGHT EXTREME ...(m):	5.950	5.950	5.950	5.950	5.950
2 TRIM ABOUT STERN ..(m):	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....(t):	14903.1	14952.2	15013.9	15091.4	15185.5
8 LCF FWD OF RFP ....(m):	-4.672	-5.703	-7.182	-8.718	-9.880
10 LCB FWD OF RFP ....(m):	-1.151	-2.120	-3.124	-4.181	-5.297
11 VCB ABOVE RFP .....(m):	3.166	3.173	3.185	3.205	3.231
12 KMT .....(m):	10.685	10.752	10.844	10.957	11.077
16 MCT SW .....(tm/m):	27994.9	28867.6	30422.0	32098.9	33282.5
18 TPM SW .....(t/m):	2981.73	3013.10	3065.45	3121.36	3161.58

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 5.980 [m]		
1 DRAUGHT EXTREME ...[m]:	6.000	6.000	6.000	6.000	6.000
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	15053.0	15103.7	15167.7	15247.8	15344.1
8 LCF FWD OF RFP ....[m]:	-4.806	-5.884	-7.410	-8.942	-10.016
10 LCB FWD OF RFP ....[m]:	-1.188	-2.157	-3.165	-4.226	-5.345
11 VCB ABOVE RFP .....[m]:	3.193	3.201	3.214	3.233	3.260
12 KMT .....[m]:	10.674	10.743	10.840	10.954	11.069
16 MCT SW .....[tm/m]:	28277.2	29214.6	30836.7	32511.6	33572.6
18 TPM SW .....[t/m]:	2992.78	3026.10	3080.44	3136.11	3172.31

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.030 [m]		
1 DRAUGHT EXTREME ...[m]:	6.050	6.050	6.050	6.050	6.050
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	15203.4	15255.8	15322.4	15405.0	15503.3
8 LCF FWD OF RFP ....[m]:	-4.958	-6.086	-7.635	-9.141	-10.128
10 LCB FWD OF RFP ....[m]:	-1.225	-2.196	-3.209	-4.274	-5.393
11 VCB ABOVE RFP .....[m]:	3.221	3.229	3.242	3.262	3.289
12 KMT .....[m]:	10.664	10.736	10.836	10.950	11.059
16 MCT SW .....[tm/m]:	28587.6	29594.1	31251.4	32992.2	33833.6
18 TPM SW .....[t/m]:	3004.64	3040.03	3095.34	3148.79	3182.06

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.080 [m]		
1 DRAUGHT EXTREME ...[m]:	6.100	6.100	6.100	6.100	6.100
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	15354.3	15408.6	15477.8	15563.1	15662.9
8 LCF FWD OF RFP ....[m]:	-5.128	-6.306	-7.886	-9.314	-10.219
10 LCB FWD OF RFP ....[m]:	-1.263	-2.236	-3.254	-4.324	-5.442
11 VCB ABOVE RFP .....[m]:	3.249	3.257	3.271	3.291	3.318
12 KMT .....[m]:	10.655	10.731	10.833	10.947	11.048
16 MCT SW .....[tm/m]:	28925.6	30003.9	31663.7	33238.9	34065.8
18 TPM SW .....[t/m]:	3017.30	3054.81	3110.08	3162.33	3190.85

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.130 [m]		
1 DRAUGHT EXTREME ...[m]:	6.150	6.150	6.150	6.150	6.150
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	15505.8	15562.0	15634.0	15721.8	15823.0
8 LCF FWD OF RFP ....[m]:	-5.311	-6.539	-8.079	-9.463	-10.290
10 LCB FWD OF RFP ....[m]:	-1.301	-2.277	-3.301	-4.375	-5.490
11 VCB ABOVE RFP .....[m]:	3.277	3.285	3.299	3.320	3.347
12 KMT .....[m]:	10.648	10.726	10.831	10.943	11.037
16 MCT SW .....[tm/m]:	29287.5	30437.4	32070.9	33554.2	34271.9
18 TPM SW .....[t/m]:	3030.64	3070.25	3124.57	3173.82	3198.77

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.190 [m]		
1 DRAUGHT EXTREME ...[m]:	6.200	6.200	6.200	6.200	6.200
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	15657.91	15716.21	15791.01	15881.21	15983.51
8 LCF FWD OF RFP ....[m]:	-5.507	-6.782	-8.277	-9.589	-10.342
10 LCB FWD OF RFP ....[m]:	-1.341	-2.320	-3.349	-4.427	-5.539
11 VCB ABOVE RFP .....[m]:	3.304	3.313	3.328	3.350	3.377
12 KMT .....[m]:	10.641	10.723	10.830	10.939	11.024
16 MCT SW .....[tm/m]:	29669.31	30888.21	32470.61	33840.51	34454.71
18 TPM SW .....[t/m]:	3044.551	3086.151	3138.751	3184.341	3205.901

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.230 [m]		
1 DRAUGHT EXTREME ...[m]:	6.250	6.250	6.250	6.250	6.250
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	15810.71	15871.11	15948.61	16041.31	16144.41
8 LCF FWD OF RFP ....[m]:	-5.712	-7.030	-8.473	-9.694	-10.379
10 LCB FWD OF RFP ....[m]:	-1.382	-2.363	-3.399	-4.480	-5.588
11 VCB ABOVE RFP .....[m]:	3.332	3.341	3.357	3.379	3.406
12 KMT .....[m]:	10.636	10.721	10.829	10.934	11.010
16 MCT SW .....[tm/m]:	30067.31	31349.71	32860.11	34100.31	34617.11
18 TPM SW .....[t/m]:	3058.891	3102.311	3152.541	3193.961	3212.341

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.280 [m]		
1 DRAUGHT EXTREME ...[m]:	6.300	6.300	6.300	6.300	6.300
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	15964.11	16026.71	16107.01	16201.81	16305.61
8 LCF FWD OF RFP ....[m]:	-5.923	-7.239	-8.659	-9.781	-10.402
10 LCB FWD OF RFP ....[m]:	-1.423	-2.409	-3.450	-4.533	-5.636
11 VCB ABOVE RFP .....[m]:	3.360	3.370	3.386	3.408	3.435
12 KMT .....[m]:	10.632	10.720	10.827	10.929	10.996
16 MCT SW .....[tm/m]:	30477.71	31815.51	33237.01	34336.01	34761.91
18 TPM SW .....[t/m]:	3073.551	3118.531	3165.871	3202.771	3218.181

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.330 [m]		
1 DRAUGHT EXTREME ...[m]:	6.350	6.350	6.350	6.350	6.350
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	16118.21	16183.01	16266.01	16362.81	16467.11
8 LCF FWD OF RFP ....[m]:	-6.138	-7.522	-8.832	-9.851	-10.413
10 LCB FWD OF RFP ....[m]:	-1.466	-2.455	-3.502	-4.587	-5.684
11 VCB ABOVE RFP .....[m]:	3.388	3.398	3.414	3.437	3.464
12 KMT .....[m]:	10.630	10.719	10.826	10.922	10.981
16 MCT SW .....[tm/m]:	30896.81	32279.01	33598.71	34550.21	34891.91
18 TPM SW .....[t/m]:	3088.421	3134.621	3178.661	3210.861	3223.511

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.380 [m]		
1 DRAUGHT EXTREME ...[m]:	6.400	6.400	6.400	6.400	6.400
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	16273.1	16340.1	16425.6	16524.2	16628.9
8 LCF FWD OF RFP ....[m]:	-6.354	-7.758	-8.990	-9.906	-10.415
10 LCB FWD OF RFP ....[m]:	-1.510	-2.504	-3.555	-4.641	-5.731
11 VCB ABOVE RFP .....[m]:	3.416	3.426	3.443	3.466	3.493
12 KMT .....[m]:	10.628	10.719	10.824	10.915	10.965
16 MCT SW .....[tm/m]:	31320.6	32733.8	33942.7	34745.2	35009.9
18 TPM SW .....[t/m]:	3103.37	3150.36	3190.84	3218.29	3228.42

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.430 [m]		
1 DRAUGHT EXTREME ...[m]:	6.450	6.450	6.450	6.450	6.450
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	16428.7	16498.0	16585.7	16685.9	16790.9
8 LCF FWD OF RFP ....[m]:	-6.568	-7.980	-9.131	-9.947	-10.409
10 LCB FWD OF RFP ....[m]:	-1.556	-2.553	-3.608	-4.644	-5.777
11 VCB ABOVE RFP .....[m]:	3.445	3.455	3.472	3.495	3.523
12 KMT .....[m]:	10.627	10.720	10.822	10.907	10.948
16 MCT SW .....[tm/m]:	31745.4	33173.2	34266.5	34923.6	35118.7
18 TPM SW .....[t/m]:	3118.29	3165.58	3202.33	3225.15	3233.01

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.480 [m]		
1 DRAUGHT EXTREME ...[m]:	6.500	6.500	6.500	6.500	6.500
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	16585.2	16656.7	16746.5	16847.9	16953.1
8 LCF FWD OF RFP ....[m]:	-6.779	-8.183	-9.275	-9.977	-10.399
10 LCB FWD OF RFP ....[m]:	-1.603	-2.605	-3.662	-4.746	-5.822
11 VCB ABOVE RFP .....[m]:	3.473	3.484	3.501	3.525	3.552
12 KMT .....[m]:	10.628	10.721	10.819	10.897	10.931
16 MCT SW .....[tm/m]:	32167.4	33590.8	34567.4	35087.9	35221.3
18 TPM SW .....[t/m]:	3133.06	3180.05	3213.06	3231.53	3237.36

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.530 [m]		
1 DRAUGHT EXTREME ...[m]:	6.550	6.550	6.550	6.550	6.550
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	16742.4	16816.2	16907.7	17010.2	17115.4
8 LCF FWD OF RFP ....[m]:	-6.982	-8.369	-9.359	-9.997	-10.383
10 LCB FWD OF RFP ....[m]:	-1.652	-2.658	-3.716	-4.797	-5.866
11 VCB ABOVE RFP .....[m]:	3.501	3.512	3.530	3.554	3.581
12 KMT .....[m]:	10.629	10.722	10.816	10.886	10.913
16 MCT SW .....[tm/m]:	32582.9	33980.4	34843.2	35240.4	35320.2
18 TPM SW .....[t/m]:	3147.55	3193.61	3222.97	3237.50	3241.57

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.580 [m]		
1 DRAUGHT EXTREME ...[m]:	6.600	6.600	6.600	6.600	6.600
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	16900.5	16976.5	17069.4	17172.6	17277.9
8 LCF FWD OF RFP ....[m]:	-7.177	-8.530	-9.444	-10.008	-10.367
10 LCB FWD OF RFP ....[m]:	-1.703	-2.712	-3.770	-4.847	-5.909
11 VCB ABOVE RFP .....[m]:	3.530	3.541	3.559	3.583	3.610
12 KMT .....[m]:	10.631	10.724	10.811	10.873	10.894
16 MCT SW .....[tm/m]:	32989.6	34340.1	35094.0	35382.8	35416.9
18 TPM SW .....[t/m]:	3161.71	3206.18	3232.05	3243.12	3245.68

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.630 [m]		
1 DRAUGHT EXTREME ...[m]:	6.650	6.650	6.650	6.650	6.650
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	17059.3	17137.5	17231.6	17335.2	17440.6
8 LCF FWD OF RFP ....[m]:	-7.362	-8.669	-9.511	-10.012	-10.348
10 LCB FWD OF RFP ....[m]:	-1.755	-2.767	-3.824	-4.895	-5.951
11 VCB ABOVE RFP .....[m]:	3.558	3.570	3.588	3.612	3.638
12 KMT .....[m]:	10.634	10.725	10.805	10.859	10.876
16 MCT SW .....[tm/m]:	33386.0	34671.7	35321.8	35516.3	35511.8
18 TPM SW .....[t/m]:	3175.48	3217.83	3240.37	3248.41	3249.70

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.680 [m]		
1 DRAUGHT EXTREME ...[m]:	6.700	6.700	6.700	6.700	6.700
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	17218.8	17299.2	17394.2	17498.0	17603.4
8 LCF FWD OF RFP ....[m]:	-7.538	-8.799	-9.643	-10.009	-10.327
10 LCB FWD OF RFP ....[m]:	-1.808	-2.824	-3.877	-4.943	-5.991
11 VCB ABOVE RFP .....[m]:	3.587	3.599	3.617	3.641	3.667
12 KMT .....[m]:	10.638	10.727	10.799	10.844	10.857
16 MCT SW .....[tm/m]:	33771.1	34976.9	35528.6	35641.8	35605.1
18 TPM SW .....[t/m]:	3188.84	3228.61	3247.99	3253.42	3253.64

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.730 [m]		
1 DRAUGHT EXTREME ...[m]:	6.750	6.750	6.750	6.750	6.750
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	17379.1	17461.4	17557.2	17660.9	17766.3
8 LCF FWD OF RFP ....[m]:	-7.703	-8.889	-9.599	-10.000	-10.305
10 LCB FWD OF RFP ....[m]:	-1.862	-2.881	-3.931	-4.989	-6.030
11 VCB ABOVE RFP .....[m]:	3.615	3.628	3.646	3.670	3.696
12 KMT .....[m]:	10.641	10.727	10.791	10.828	10.838
16 MCT SW .....[tm/m]:	34143.4	35257.4	35716.6	35760.6	35697.2
18 TPM SW .....[t/m]:	3201.74	3238.57	3254.98	3258.17	3257.49

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.780 [m]		
1 DRAUGHT EXTREME ...[m]:	6.800	6.800	6.800	6.800	6.800
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	17540.01	17624.21	17720.51	17824.11	17929.51
8 LCF FWD OF RFP ....[m]:	-7.856	-8.972	-9.623	-9.986	-10.281
10 LCB FWD OF RFP ....[m]:	-1.917	-2.938	-3.984	-5.035	-6.069
11 VCB ABOVE RFP .....[m]:	3.644	3.657	3.675	3.698	3.725
12 KMT .....[m]:	10.645	10.727	10.783	10.812	10.818
16 MCT SW .....[tm/m]:	34501.71	35514.91	35887.91	35873.61	35788.41
18 TPM SW .....[t/m]:	3214.14	3247.77	3261.40	3262.70	3261.28

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.830 [m]		
1 DRAUGHT EXTREME ...[m]:	6.850	6.850	6.850	6.850	6.850
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	17701.41	17787.41	17884.11	17987.51	18092.81
8 LCF FWD OF RFP ....[m]:	-7.997	-9.039	-9.635	-9.967	-10.255
10 LCB FWD OF RFP ....[m]:	-1.973	-2.995	-4.036	-5.079	-6.106
11 VCB ABOVE RFP .....[m]:	3.672	3.686	3.704	3.727	3.754
12 KMT .....[m]:	10.648	10.727	10.774	10.795	10.799
16 MCT SW .....[tm/m]:	34844.81	35751.31	36044.41	35982.01	35879.11
18 TPM SW .....[t/m]:	3226.01	3256.25	3267.32	3267.04	3265.01

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.880 [m]		
1 DRAUGHT EXTREME ...[m]:	6.900	6.900	6.900	6.900	6.900
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	17863.51	17951.11	18048.01	18151.11	18256.21
8 LCF FWD OF RFP ....[m]:	-8.124	-9.091	-9.638	-9.946	-10.229
10 LCB FWD OF RFP ....[m]:	-2.029	-3.052	-4.088	-5.123	-6.143
11 VCB ABOVE RFP .....[m]:	3.701	3.714	3.733	3.756	3.782
12 KMT .....[m]:	10.650	10.725	10.764	10.778	10.780
16 MCT SW .....[tm/m]:	35171.41	35968.21	36188.41	36086.81	35969.51
18 TPM SW .....[t/m]:	3237.32	3264.09	3272.81	3271.23	3268.69

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 6.930 [m]		
1 DRAUGHT EXTREME ...[m]:	6.950	6.950	6.950	6.950	6.950
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	18026.11	18115.11	18212.21	18314.91	18419.91
8 LCF FWD OF RFP ....[m]:	-8.238	-9.130	-9.633	-9.922	-10.201
10 LCB FWD OF RFP ....[m]:	-2.085	-3.109	-4.139	-5.166	-6.179
11 VCB ABOVE RFP .....[m]:	3.730	3.743	3.762	3.785	3.811
12 KMT .....[m]:	10.652	10.721	10.753	10.761	10.761
16 MCT SW .....[tm/m]:	35480.11	36167.41	36321.91	36189.21	36060.01
18 TPM SW .....[t/m]:	3248.02	3271.32	3277.92	3275.29	3272.32

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]	DRAFT RFP : 6.980 [m]			
1 DRAUGHT EXTREME ...[m]:	7.000	7.000	7.000	7.000	7.000
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	18189.2	18279.3	18376.6	18478.9	18583.7
8 LCF FWD OF RFP ....[m]:	-8.337	-9.156	-9.621	-9.897	-10.173
10 LCB FWD OF RFP ....[m]:	-2.141	-3.164	-4.189	-5.208	-6.214
11 VCB ABOVE RFP .....[m]:	3.759	3.772	3.791	3.814	3.840
12 KMT .....[m]:	10.653	10.717	10.742	10.744	10.743
16 MCT SW .....[tm/m]:	35769.8	36350.7	36446.9	36290.1	36150.8
18 TPM SW .....[t/m]:	3258.07	3278.01	3282.72	3279.26	3275.92

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]	DRAFT RFP : 7.030 [m]			
1 DRAUGHT EXTREME ...[m]:	7.050	7.050	7.050	7.050	7.050
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	18352.7	18443.8	18541.1	18643.1	18747.8
8 LCF FWD OF RFP ....[m]:	-8.420	-9.172	-9.605	-9.871	-10.143
10 LCB FWD OF RFP ....[m]:	-2.197	-3.219	-4.237	-5.249	-6.249
11 VCB ABOVE RFP .....[m]:	3.787	3.801	3.820	3.842	3.868
12 KMT .....[m]:	10.652	10.710	10.730	10.728	10.725
16 MCT SW .....[tm/m]:	36039.2	36519.7	36565.6	36390.7	36242.4
18 TPM SW .....[t/m]:	3267.44	3284.21	3287.27	3283.17	3279.49

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]	DRAFT RFP : 7.080 [m]			
1 DRAUGHT EXTREME ...[m]:	7.100	7.100	7.100	7.100	7.100
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	18516.6	18608.5	18705.8	18807.5	18912.0
8 LCF FWD OF RFP ....[m]:	-8.488	-9.179	-9.585	-9.844	-10.114
10 LCB FWD OF RFP ....[m]:	-2.253	-3.272	-4.285	-5.289	-6.282
11 VCB ABOVE RFP .....[m]:	3.816	3.830	3.849	3.871	3.897
12 KMT .....[m]:	10.651	10.702	10.717	10.711	10.707
16 MCT SW .....[tm/m]:	36238.8	36676.0	36679.1	36491.3	36334.7
18 TPM SW .....[t/m]:	3276.15	3289.96	3291.62	3287.03	3283.03

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]	DRAFT RFP : 7.130 [m]			
1 DRAUGHT EXTREME ...[m]:	7.150	7.150	7.150	7.150	7.150
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	18680.9	18773.4	18870.7	18972.2	19076.5
8 LCF FWD OF RFP ....[m]:	-8.542	-9.177	-9.561	-9.817	-10.083
10 LCB FWD OF RFP ....[m]:	-2.309	-3.325	-4.332	-5.329	-6.315
11 VCB ABOVE RFP .....[m]:	3.845	3.859	3.877	3.900	3.925
12 KMT .....[m]:	10.648	10.693	10.703	10.696	10.690
16 MCT SW .....[tm/m]:	36520.0	36821.2	36788.1	36591.9	36427.4
18 TPM SW .....[t/m]:	3284.23	3295.31	3295.77	3290.85	3286.53

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 7.150 [m]		
1 DRAUGHT EXTREME ...[m]:	7.200	7.200	7.200	7.200	7.200
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	18845.6	18938.5	19035.8	19137.0	19241.1
8 LCF FWD OF RFP ....[m]:	-8.584	-9.168	-9.534	-9.789	-10.051
10 LCB FWD OF RFP ....[m]:	-2.364	-3.376	-4.377	-5.368	-6.348
11 VCB ABOVE RFP .....[m]:	3.874	3.888	3.906	3.928	3.954
12 KMT .....[m]:	10.643	10.682	10.689	10.680	10.673
16 MCT SW .....[tm/m]:	36734.4	36956.6	36893.4	36692.2	36520.4
18 TPM SW .....[t/m]:	3291.73	3300.30	3299.75	3294.60	3289.99

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		DRAFT RFP : 7.230 [m]		
1 DRAUGHT EXTREME ...[m]:	7.250	7.250	7.250	7.250	7.250
2 TRIM ABOUT STERN ..[m]:	-0.500	0.000	0.500	1.000	1.500
4 DISP TOTAL SW .....[t]:	19010.7	19103.8	19201.0	19302.1	19405.9
8 LCF FWD OF RFP ....[m]:	-8.613	-9.151	-9.504	-9.760	-10.019
10 LCB FWD OF RFP ....[m]:	-2.419	-3.426	-4.421	-5.406	-6.379
11 VCB ABOVE RFP .....[m]:	3.902	3.917	3.935	3.957	3.982
12 KMT .....[m]:	10.638	10.671	10.675	10.665	10.657
16 MCT SW .....[tm/m]:	36933.6	37083.7	36995.5	36792.1	36613.3
18 TPM SW .....[t/m]:	3298.70	3304.98	3303.59	3298.29	3293.39

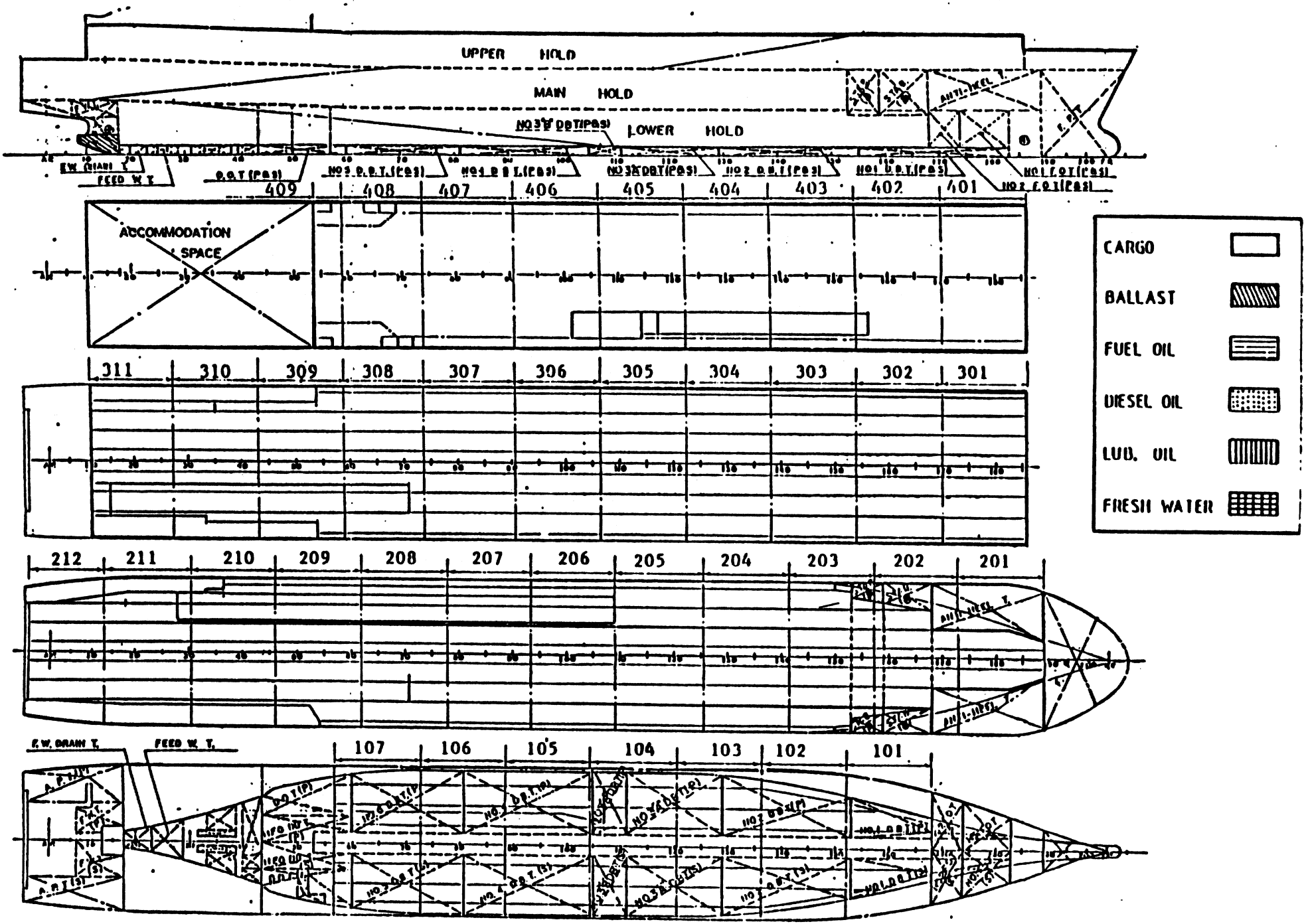
4. LOADING CONDITION

CONDITION / ITEMS / UNIT			(1)		(2)-1	(2)-2	(3)-1	(3)-2	(3)-3	(4)-1	(4)-2	(4)-3
			L/W WITH D/W CONSTANT		BALLAST LOADING		BASIC (CASE 1) CONDITION, FULL LOAD (R-TIR:160ST)			BASIC (CASE 2) CONDITION, (R-TIR : 160ST)		
					DEP.	ARR.	DEP.	ARR.	I. ARR.	DEP.	ARR.	I-ARR.
LIGHT WEIGHT		T	7350.0		7350.0	7350.0	7350.0	7350.0	7350.0	7350.0	7350.0	7350.0
DEAD WEIGHT	CONST/COOLING	"	110.3/17.7	/	110.3/	110.3/	110.3/17.7	110.3/17.7	110.3/17.7	110.3/17.7	110.3/17.7	110.3/17.7
	CARGO	"					8912.0	8912.0	8912.0	8912.0	8912.0	8912.0
	ICING	"							49.4			49.4
	STABILIZER	"			A+B 323.8	A+B 323.8	B 194.6	B 194.6	B 194.6	A 129.2	A 129.2	A 129.2
	ANTI-HEELING	"			C 401.5	C 401.5	C 401.5	C 401.5	C 401.5			
	BALLAST	"			2986.3	2986.3	980.3	980.3	980.3	456.8	456.8	456.8
	FUEL OIL	"			200.0	32.4	200.0	32.4	32.4	200.0	32.4	32.4
	DIESEL OIL	"			17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
	LUB. OIL	"			20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
	FEED WATER	"			25.5	7.5	25.5	7.5	7.5	25.5	7.5	7.5
	FRESH WATER	"			50.0	31.0	50.0	31.0	31.0	50.0	31.0	31.0
	TOTAL	"	128.0		4134.8	3930.2	10929.3	10724.7	10774.1	9938.9	9734.3	9783.7
DISPLACEMENT		"	7478.0		11484.8	11280.2	18279.3	18074.7	18124.1	17288.9	17084.3	17133.7
DRAFT (EXTREME)	AFT	M	5.328		4.904	4.996	7.003	7.058	7.075	6.935	6.990	7.007
	FORE	"	1.005		4.594	4.339	6.996	6.786	6.799	6.395	6.180	6.194
	MIDSHIP	"	3.167		4.749	4.668	7.000	6.922	6.937	6.665	6.585	6.600
TRIM		"	4.323		0.309	0.657	0.008	0.272	0.276	0.541	0.809	0.813
KG		"	10.274		8.029	8.113	9.924	9.998	10.004	10.233	10.315	10.319
GGo		"	0.070		0.848	0.835	0.297	0.282	0.282	0.200	0.183	0.182
KGo		"	10.343		8.877	8.948	10.221	10.281	10.285	10.432	10.498	10.502
GoM		"	3.860		2.485	2.515	0.496	0.468	0.461	0.379	0.360	0.353
MAX. SHEAR FORCE		T-M	1031		1307	1250	-874	-773	-775	872	813	815
MAX. BEND. MOMENT		"	42677		63411	60187	35935	32779	32867	37394	34301	34396

ITEMS \ CONDITION / UNIT			(5) - 1	(5) - 2	(5) - 3		(6) - 1	(6) - 2	(7) - 1	(7) - 2	(8) - 1	(8) - 2
			BASIC CONDITION (R-TIR:160ST) WINTER DRAFT				R-TIR (94ST) & HOMO(S.F.=55.0CF/LT)		CONTAINER LOADING (169 TEU)		E-TIR (160ST) & P-CAR (337ST)	
			DEP.	ARR.	I. ARR.	ARR.	DEP.	ARR.	DEP.	ARR.	DEP.	ARR.
LIGHT WEIGHT		T	7350.0	7350.0	7350.0		7350.0	7350.0	7350.0	7350.0	7350.0	7350.0
DEAD WEIGHT	CONST/COOLING	"	110.3/17.7	110.3/17.7	110.3/17.7	/	110.3/17.7	110.3/17.7	110.3/17.7	110.3/17.7	110.3/17.7	110.3/17.7
	CARGO	"	8912.0	8912.0	8912.0		8826.4	8826.4	3392.0	3392.0	1754.5	1754.5
	ICING	"			49.4							
	STABILIZER	"	A 129.2	A 129.2	A 129.2		A + B 323.8	A + B 323.8	A + B 323.8	A + B 323.8	A + B 323.8	A + B 323.8
	ANTI-HEELING	"	C 401.5	C 401.5	C 401.5		C 401.5	C 401.5	C 401.5	C 401.5	C 401.5	C 401.5
	BALLAST	"	570.2	570.2	570.2		936.7	936.7	1559.1	1559.1	1171.6	1171.6
	FUEL OIL	"	200.0	32.4	32.4		200.0	32.4	200.0	32.4	200.0	32.4
	DIESEL OIL	"	17.4	17.4	17.4		17.4	17.4	17.4	17.4	17.4	17.4
	LUB. OIL	"	20.0	20.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
	FEED WATER	"	25.5	7.5	7.5		25.5	7.5	25.5	7.5	25.5	7.5
	FRESH WATER	"	50.0	31.0	31.0		50.0	31.0	50.0	31.0	50.0	31.0
	TOTAL	"	10453.8	10249.2	10298.6		10929.3	10724.7	6117.3	5912.7	4092.3	3887.7
DISPLACEMENT		"	17803.8	17599.2	17648.6		18279.3	18074.7	13467.3	13262.7	11442.3	11237.7
DRAFT (EXTREME)	AFT	M	6.907	6.962	6.979		6.971	7.025	5.786	5.865	4.775	4.868
	FORE	"	6.790	6.578	6.591		7.037	6.827	5.067	4.825	4.704	4.449
	MIDSHIP	"	6.848	6.770	6.785		7.004	6.926	5.427	5.345	4.739	4.658
TRIM		"	0.116	0.384	0.388		-0.066	0.198	0.718	1.041	0.071	0.419
KG		"	10.141	10.219	10.224		9.802	9.874	9.146	9.235	9.090	9.194
GGo		"	0.215	0.199	0.198		0.417	0.404	0.615	0.600	0.667	0.651
KGo		"	10.356	10.418	10.423		10.218	10.278	9.761	9.835	9.758	9.845
GoM		"	0.386	0.361	0.355		0.492	0.464	1.244	1.255	1.589	1.602
MAX. SHEAR FORCE		T-M	869	810	812		-577	-456	1439	1383	1224	1166
MAX. BEND. MOMENT		"	37060	33587	33696		15198	12400	62743	59598	52910	49945

ITEMS \ CONDITION / UNIT			(9) - 1 R-TIR (31ST), E-TIR (160ST) & P-CAR(270ST) DEP.	(9) - 2 R-TIR (31ST), E-TIR (160ST) & P-CAR(270ST) ARR.	(10) DOCKING CONDITION		(11) HARBOUR CONDITION (R-TIR : 160ST)			DEP.		ARR.
LIGHT WEIGHT		T	7350.0	7350.0	7350.0		7350.0					
DEAD WEIGHT	CONST./COOLING	"	110.3/17.7	110.3/17.7	110.3/17.7		110.3/17.7					
	CARGO	"	3313.7	3313.7			8912.0					
	ICING	"										
	STABILIZER	"	A + B 323.8	A + B 323.8								
	ANTI-HEELING	"	C 401.5	C 401.5	C 401.5		A + C 530.7					
	BALLAST	"	350.0	350.0	1549.4		878.6					
	FUEL OIL	"	200.0	32.4	32.4		200.0					
	DIESEL OIL	"	17.4	17.4	17.4		17.4					
	LUB. OIL	"	20.0	20.0	20.0		20.0					
	FEED WATER	"	25.0	7.5	7.5		25.5					
	FRESH WATER	"	50.0	31.0	31.0		50.0					
	TOTAL	"	4829.9	4625.3	2187.2		10762.2					
DISPLACEMENT		"	12179.9	11975.3	9537.2		18112.2					
DRAFT (EXTREME)	AFT	M	5.000	5.089	4.061		6.931					
	FORE	"	5.005	4.755	4.033		6.972					
	MIDSHIP	"	5.002	4.922	4.047		6.951					
TRIM		"	-0.005	0.334	0.028		-0.041					
KG		"	9.160	9.259	9.174		9.982					
GGo		"	0.680	0.664	0.475		0.167					
KGo		"	9.840	9.924	9.649		10.148					
GoM		"	1.308	1.313	2.437		0.568					
MAX. SHEAR FORCE		T-M	1087	1028	1443		845					
MAX. BEND. MOMENT		"	51401	48067	62571		40179					

CONDITION : (1) L/W WITH D/W CONSTANT.



L O A D I N G C O N D I T I O N : (1) - L/W with D/W const

PART CONDITION INCLUDED : DWC(1) - Dead weight const.

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	MISCELLANEOUS						
DW 10	Dead weight const.	110.3	9.940	1096	-22.350	-2465	516.0
DW 20	Cool. water:APT(S)	17.7	1.470	26	-69.640	-1233	4.0
		128.0	8.769	1122	-28.889	-3698	520.0
	DEADWEIGHT ..... :	128.0	8.769	1122	-28.889	-3698	520.0
	LIGHT SHIP WEIGHT :	7350.0	10.300	75705	-12.850	-94448	
	DISPLACEMENT .... :	7478.0	10.274	76827	-13.125	-98145	520.0

D R A U G H T A N D T R I M

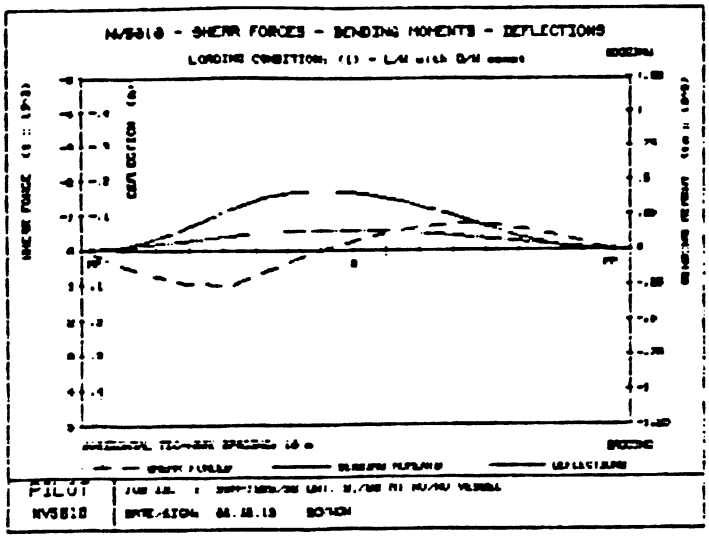
WATER DENSITY	:	1.0250	t/m3
VOLUME OF DISPLACEMENT	:	7295.610	m3
DRAUGHT AT AP (BASELINE)	:	5.308	m
--- '' --- FP (-- '' --)	:	.985	m
--- '' --- LBP/2 (-- '' --)	:	3.147	m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	5.328	m
--- '' --- FP (----- '' -----)	:	1.005	m
--- '' --- LBP/2 (----- '' -----)	:	3.167	m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	4.323	m

M A X I M U M V A L U E S

LONG. POS.	SHEAR FORCES		BENDING MOMENTS		DEFLECTIONS
(m)	(t)	(kN)	(tm)	(kNm)	(m)
-39.000	1031	10108			
33.464	-749	-7348			
-9.962			42677	418517	
-6.536					-.059

BENDING MOMENT CORRECTION AT FWD. END ..... : -31 tm

PILOT LOADING CALCULATION
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL



TABLES OF RESULTS

LONG. POSITION (FRAME)		(GLOBAL) (m)	SHEAR FORCES (t)	(kN)	BENDING MOMENTS (tm)	(kNm)	DEFLECT. (OPTIONAL) (m)
F-7	+.4	-82.400	0	0	0	0	0.000
F-7	+.42	-82.380	2	18	0	0	-0.000
F-5		-81.600	75	732	30	294	-.001
F-5	+.2	-81.400	77	750	45	443	-.001
F-1		-79.200	97	954	23o	2315	-.002
F-1	+.2	-79.000	100	978	256	2509	-.002
F0		-78.600	109	1072	298	2920	-.003
F1	+.5	-77.500	162	1587	447	4387	-.003
F3	+.05	-76.750	194	1906	581	5699	-.004
F3	+.35	-76.450	205	2013	641	6288	-.004
F4		-76.200	217	2125	694	6806	-.004
F6		-75.000	273	2677	988	9690	-.005
F6	+.2	-74.800	283	2771	1044	10235	-.006
F8		-73.800	331	3246	1351	13247	-.006
F10		-72.600	383	3759	1780	17454	-.007
F14		-70.200	452	4435	2785	27314	-.010
F15		-69.600	470	4608	3062	30028	-.010
F18		-67.800	523	5126	3957	38809	-.012

PILOT LOADING CALCULATION
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL 86.12.13 SCKWON

LONG. POSITION (FRAME)	(GLOBAL) (m)	SHEAR FORCES (t)	(kN)	BENDING MOMENTS (tm)	(kNm)	DEFLECT. (OPTIONAL) (m)
F20	-66.200	562	5507	4826	47327	-.013
F21	-65.400	585	5740	5285	51829	-.014
F24	-63.000	657	6447	6781	66494	-.016
F26	-61.400	700	6866	7869	77169	-.018
F28	-59.800	729	7151	9014	88396	-.020
F28 +.4	-59.400	736	7214	9307	91270	-.020
F29	-59.000	751	7368	9604	94188	-.020
F30	-58.200	777	7617	10216	100188	-.021
F31	-57.400	795	7801	10846	106361	-.022
F33	-55.800	839	8226	12153	119181	-.024
F38	-51.800	915	8978	15668	153650	-.028
F39	-51.000	923	9050	16403	160863	-.029
F45	-46.200	936	9183	20868	204644	-.034
F46 +.2	-45.200	949	9308	21811	213891	-.035
F47	-44.600	951	9328	22381	219483	-.036
F51	-41.400	985	9659	25479	249823	-.039
F52	-40.600	1006	9861	26272	257635	-.040
F53 +.4	-39.400	1029	10089	27493	269618	-.041
F54	-39.000	1031	10108	27905	273658	-.041
F57	-36.600	969	9504	30305	297193	-.044
F68 +.3	-27.500	613	6014	37491	367661	-.051
F71	-25.400	535	5247	38697	379486	-.053
F101	-1.400	-241	-2360	41617	408126	-.058
F102+.6	0.000	-275	-2694	41257	404589	-.058
F107	3.400	-353	-3460	40389	396111	-.057
F109	5.000	-390	-3820	39595	388292	-.057
F114	9.000	-478	-4692	37856	371243	-.055
F117	11.400	-527	-5169	36649	359401	-.054
F137+.1	27.500	-734	-7194	26205	256988	-.044
F155	41.800	-715	-7014	15619	153170	-.032
F156	42.600	-709	-6950	15050	147586	-.031
F184	65.000	-360	-3534	2559	25093	-.013
F186	66.600	-323	-3172	2012	19729	-.011
F187	67.400	-299	-2930	1763	17290	-.011
F188	68.200	-281	-2751	1532	15019	-.010
F191	70.200	-237	-2320	1013	9934	-.009
F193	71.400	-214	-2094	743	7288	-.008
F194	72.000	-199	-1952	620	6076	-.008
F197	73.800	-120	-1180	333	3262	-.006
F198	74.400	-97	-955	269	2635	-.006
F202	76.800	-55	-545	86	842	-.004
F205	78.600	-11	-106	30	292	-.003
F210	81.600	-5	-50	6	64	-.002
F212+.2	83.000	-2	-24	2	15	-.001
F214+.5	84.500	-0	-0	0	0	0.000

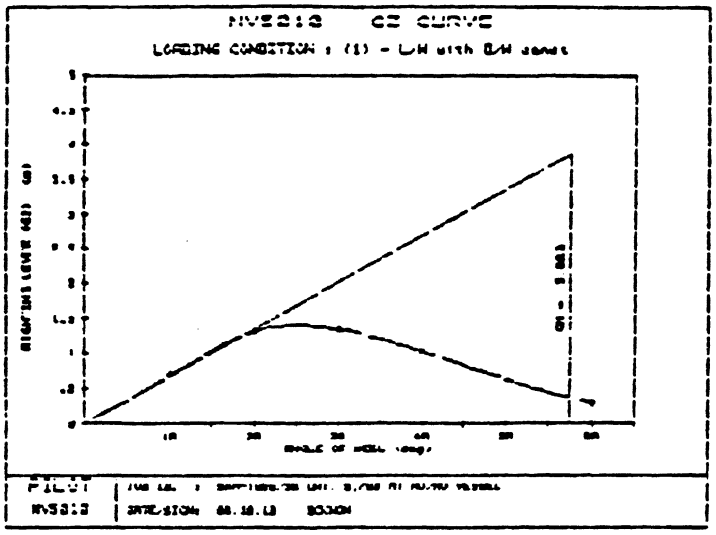
PILOT LOADING CALCULATION PAGE 5
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL 86.12.13 SCKWON

METACETRIC HEIGHT

FREE SURFACE CORRECTION	:	.070 m
CORRECTED VCG	:	10.343 m
CORRECTED GMT	:	3.860 m

STABILITY LEVERS

ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	.002	0.000
10.0	.694	2.488
20.0	1.317	4.853
30.0	1.341	6.512
40.0	1.029	7.676
50.0	.632	8.554
60.0	.291	9.248
25.0 (MAX GZ)	1.400	5.771

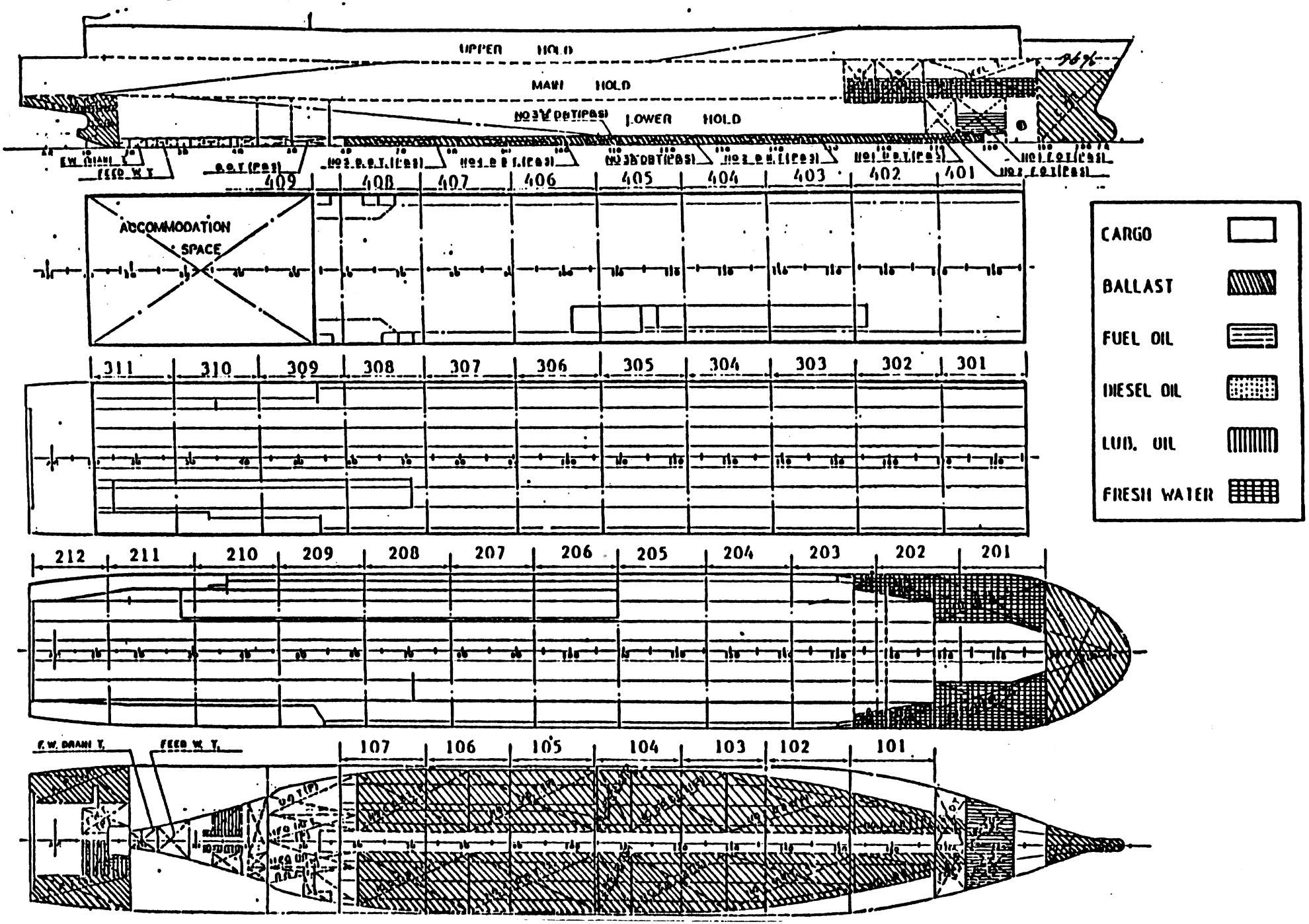


CALCULATION OF GZ-CURVE IS BASED ON INTERPOLATED CROSS CURVE DATA
SPLINE INTERPOLATION IN CROSS CUPVES, CALCULATED POINTS APE MARKED BY '*

A R E A S U N D E R G Z - C U R V E

0 - 25.0	(MAX GZ)	:	.357	m*Rad
0 - 15.0		:	.144	m*Rad
0 - 20.0		:	.241	m*Rad
0 - 30.0		:	.478	m*Rad
0 - 40.0		:	.687	m*Rad
30 - 40.0		:	.209	m*Rad

CONDITION : (2)-1. Ballast loading departure



PILOT LOADING CALCULATION — PAGE 15
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL — 86.12.13 SCKWON

L O A D I N G C O N D I T I O N : (2)-1 - Ballast Load DEP.

PART CONDITION INCLUDED :
- BAL - Ballast(S.G=1.025)
- S-ABC - Stab(A+B) & A/H Tk
- DEP - Consumables (DEP)
- DWC(2) - Dead weight const.

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	STABILIZER SYSTEM						
S 10	Stabilizer(A) Tank	129.2	7.840	1013	42.610	5505	2436.0
S 20	Stabilizer(B) Tank	194.6	8.020	1561	48.520	9442	3826.0
		323.8	7.948	2574	46.162	14947	6262.0
	ANTI-HEELING SYS.						
A 31	A/H Tank (Closed)	401.5	8.820	3541	59.440	23865	344.0
		401.5	8.820	3541	59.440	23865	344.0
	BALLAST						
FPT	FORE PEAK TANK	544.4	7.990	4350	73.270	39888	2124.8
DB 10	No.1 D. B. T.(P&S)	192.2	.950	183	47.650	9158	0.0
DB 20	No.2 D. B. T.(P&S)	456.8	.870	397	29.870	13645	0.0
DB830	No.3 "A"D.B.T(P&S)	422.6	.840	355	13.730	5802	0.0
DB831	No.3 "B" D.B.T.(P)	66.0	.800	53	4.330	286	0.0
DB832	No.3 "B" D.B.T.(S)	71.5	.840	60	4.200	300	0.0
DB 41	No.4 D. B. T. (P)	228.8	.720	165	-7.830	-1792	0.0
DB 42	No.4 D. B. T. (S)	236.1	.840	240	-7.790	-2229	0.0
DB 51	No.5 D. B. T. (P)	186.3	.740	138	-25.530	-4756	0.0
DB 52	No.5 D. B. T. (S)	235.5	.860	203	-25.590	-6026	0.0
APT11	AFT PEAK TANK (P)	118.0	7.400	873	-74.090	-8743	0.0
APT12	AFT PEAK TANK (S)	178.1	6.290	1120	-72.980	-12998	0.0
		2986.3	2.725	8137	10.895	32536	2124.8
	CONSUMABLES						
FO 11	No.1 H.F.O.T (P)	77.7	3.160	246	60.310	4686	161.4
FO 12	No.1 H.F.O.T (S)	89.9	3.360	302	60.310	5422	161.4
FO 41	H.F.O. SER. TANK	14.1	5.530	78	-47.800	-674	1.0
FO 42	H.F.O. SETT. TANK	18.3	5.870	107	-49.810	-912	2.0
DO 21	D. O. SER. TANK	8.7	4.470	39	-37.400	-325	0.0
DO 22	D. O. SETT. TANK	8.7	4.470	39	-37.400	-325	0.0
LO 10	L.O.SUMP TANK(P&S)	13.0	.940	12	-54.470	-708	3.6
LO 20	L. O. CLEAN TANK	7.0	.650	5	-53.180	-372	9.9
FW 12	FRESH W. TANK (S)	50.0	6.240	312	-71.510	-3576	89.0
FW 20	FEED WATER TANK	25.5	.780	20	-61.220	-1561	65.0
		312.9	3.705	1159	5.282	1655	493.2
	MISCELLANEOUS						

PILOT LOADING CALCULATION PAGE 3
NV5010 SN#-1035/36 DWT. 9,700 MT RO/RO VESSEL 86.12.13 SCKUON

Dw 10 Dead weight const.	110.3	9.940	1096	-22.350	-2465	516.0
	110.3	9.940	1096	-22.350	-2465	516.0
DEADWEIGHT ..... :	4134.8	3.992	16507	17.060	70538	9740.0
LIGHT SHIP WEIGHT :	7350.0	10.300	75705	-12.850	-94443	
DISPLACEMENT .... :	11484.8	8.029	92212	-2.082	-23909	9740.0

D R A U G H T A N D T R I M

WATER DENSITY ..... :	1.0250	t/m3
VOLUME OF DISPLACEMENT ..... :	11204.683	m3
DRAUGHT AT AP (BASELINE) ..... :	4.884	m
--- '' --- FP (-- '' --) ..... :	4.574	m
--- '' --- LBP/2 (-- '' --) ..... :	4.729	m
DRAUGHT AT AP (UNDERSIDE KEEL) ..... :	4.904	m
--- '' --- FP (----- '' -----) ..... :	4.594	m
--- '' --- LBP/2 (----- '' -----) ..... :	4.749	m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ... :	.309	m

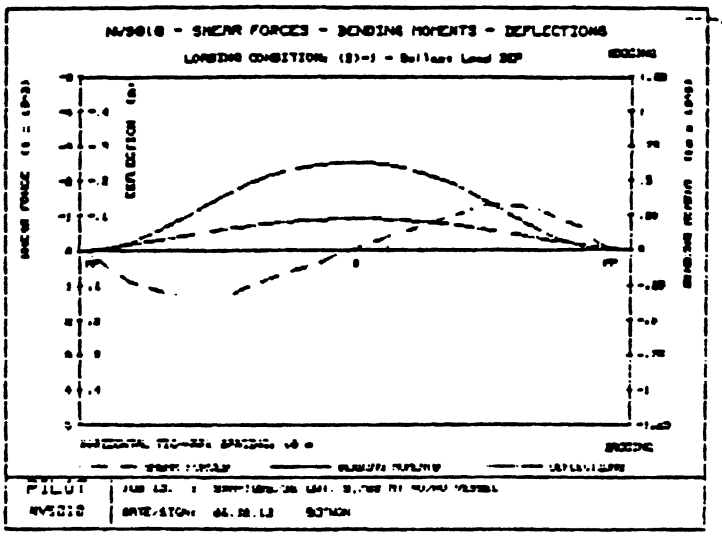
M A X I M U M V A L U E S

LONG. POS.	SHEAR FORCES		BENDING MOMENTS		DEFLECTIONS
(m)	(t)	(kN)	(tm)	(kNm)	(m)
-39.400	1307	12821			
40.200	-1306	-12809			
-1.943			63411	621847	
-1.400					-.091

BENDING MOMENT CORRECTION AT FWD. END ..... : 36 tm

PILOT LOADING CALCULATION
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL

86.12.13 SCKWON



T A B L E S O F R E S U L T S

LONG. POSITION (FRAME)	(GLOBAL) (m)	SHEAR FORCES (t)	(kN)	BENDING MOMENTS (tm)	(kNm)	DEFLECT. (OPTIONAL) (m)
F-7 +.4	-82.400	0	0	0	0	0.000
F-7 +.42	-82.380	2	18	0	0	-0.000
F-5	-81.600	80	787	32	312	-.001
F-5 +.2	-81.400	84	821	48	472	-.001
F-1	-79.200	128	1252	278	2726	-.003
F-1 +.2	-79.000	133	1302	304	2981	-.004
F0	-78.800	148	1448	360	3530	-.004
F1 +.5	-77.500	217	2125	560	5493	-.005
F3 +.05	-76.750	262	2567	739	7251	-.006
F3 +.35	-76.450	278	2724	820	8045	-.007
F4	-76.200	294	2881	892	8745	-.007
F6	-75.000	374	3666	1292	12668	-.008
F8	-73.800	467	4579	1796	17610	-.010
F10	-72.600	557	5465	2410	23633	-.011
F14	-70.200	710	6967	3931	38549	-.015
F15	-69.600	751	7363	4369	42847	-.015
F18	-67.800	875	8583	5833	57203	-.018
F20	-66.200	915	8974	7266	71253	-.020

PILOT LOADING CALCULATION
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL 86.12.13 SCKWON

LONG. POSITION (FRAME)	(GLOBAL) (m)	SHEAR FORCES (t)	(kN)	BENDING MOMENTS (tm)	(kNm)	DEFLECT. (OPTIONAL) (m)
F21	-65.400	939	9210	8008	78527	-.021
F23	-63.800	990	9707	9552	93669	-.024
F24	-63.000	1015	9957	10354	101535	-.025
F26	-61.400	1065	10448	12020	117876	-.028
F28	-59.800	1102	10807	13755	134887	-.030
F28 +.4	-59.400	1110	10888	14197	139226	-.031
F29	-59.000	1128	11061	14645	143616	-.031
F30	-58.200	1152	11295	15557	152561	-.033
F31	-57.400	1170	11471	16486	161670	-.034
F33	-55.800	1211	11873	18390	180340	-.036
F38	-51.800	1281	12560	23379	229273	-.043
F39	-51.000	1286	12612	24406	239340	-.044
F42	-48.600	1294	12688	27503	269708	-.048
F44	-47.000	1298	12732	29576	290044	-.050
F45	-46.200	1293	12681	30613	300207	-.052
F46 +.2	-45.200	1296	12710	31907	312901	-.053
F47	-44.600	1292	12670	32683	320514	-.054
F51	-41.400	1289	12644	36810	360979	-.059
F52	-40.600	1300	12748	37845	371137	-.060
F53 +.4	-39.400	1307	12821	39411	386487	-.062
F54	-39.000	1304	12787	39933	391608	-.062
F55	-38.200	1272	12474	40963	401711	-.064
F57	-36.600	1225	12016	42961	421300	-.066
F60	-34.200	1092	10708	45741	448570	-.069
F68 +.3	-27.500	868	8514	52306	512951	-.077
F71	-25.400	799	7831	54056	530108	-.079
F81	-17.400	526	5158	59347	581995	-.035
F101	-1.400	-18	-181	63406	621797	-.091
F102+.6	0.000	-65	-637	63347	621221	-.091
F105	1.800	-125	-1223	63176	619544	-.091
F107	3.400	-177	-1737	62934	617169	-.090
F109	5.000	-231	-2251	62608	613973	-.090
F111	6.600	-281	-2755	62199	609962	-.090
F114	9.000	-358	-3512	61432	602437	-.089
F117	11.400	-436	-4272	60479	593092	-.088
F129	21.000	-741	-7269	54824	537635	-.081
F137+.1	27.500	-941	-9229	49354	483997	-.075
F153	40.200	-1306	-12808	35007	343304	-.059
F155	41.800	-1304	-12788	32919	322821	-.057
F156	42.600	-1302	-12772	31876	312595	-.056
F159	45.000	-1296	-12710	28756	282003	-.052
F168	52.200	-1236	-12123	19617	192376	-.041
F173	56.200	-1157	-11346	14829	145424	-.035
F174	57.000	-1131	-11095	13914	136446	-.034
F183	64.200	-839	-8226	6861	67287	-.023
F184	65.000	-816	-8005	6199	60793	-.022
F186	66.600	-772	-7573	4925	48300	-.020
F187	67.400	-742	-7275	4320	42363	-.019
F188	68.200	-723	-7087	3734	36619	-.018
F189	69.000	-706	-6926	3162	31011	-.017
F191	70.200	-597	-5853	2380	23344	-.015
F193	71.400	-501	-4915	1723	16892	-.014
F194	72.000	-454	-4449	1436	14083	-.013
F197	73.800	-287	-2815	772	7570	-.011
F198	74.400	-239	-2344	614	6022	-.010

LONG. POSITION (GLOBAL) (FRAME)	(m)	SHEAR FORCES (t)	(kN)	BENDING MOMENTS (tm)	(kNm)	DEFLECT. (OPTIONAL) (m)
F202	76.800	-117	-1145	194	1901	-.008
F205	78.600	-37	-358	61	597	-.006
F210	81.600	-5	-50	8	75	-.003
F212+.2	83.000	-2	-24	2	21	-.001
F214+.5	84.500	0	0	0	0	-0.000

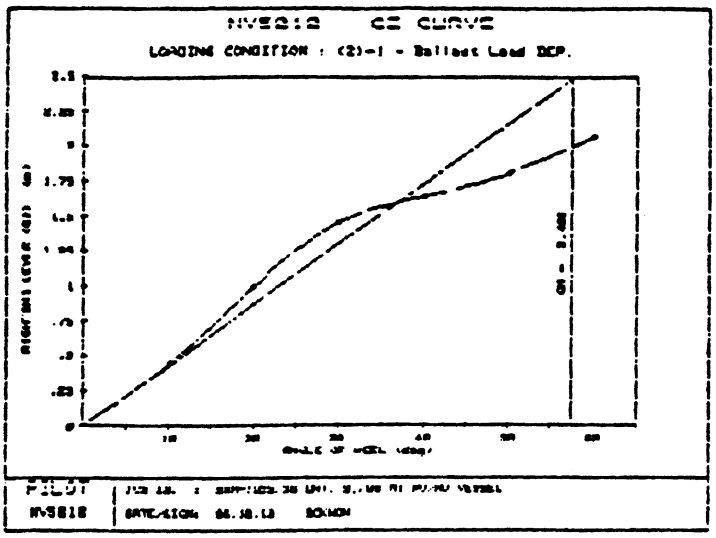
METACETRIC HEIGHT

FREE SURFACE CORRECTION	:	.848 m
CORRECTED VCG	:	8.877 m
CORRECTED GMT	:	2.485 m

STABILITY LEVERS

ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	.001	0.000
10.0	.452	1.992
20.0	.991	4.027
30.0	1.450	5.888
40.0	1.641	7.347
50.0	1.804	8.604
60.0	2.069	9.756
60.0 (MAX GZ)	2.069	9.757

PILOT LOADING CALCULATION
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL

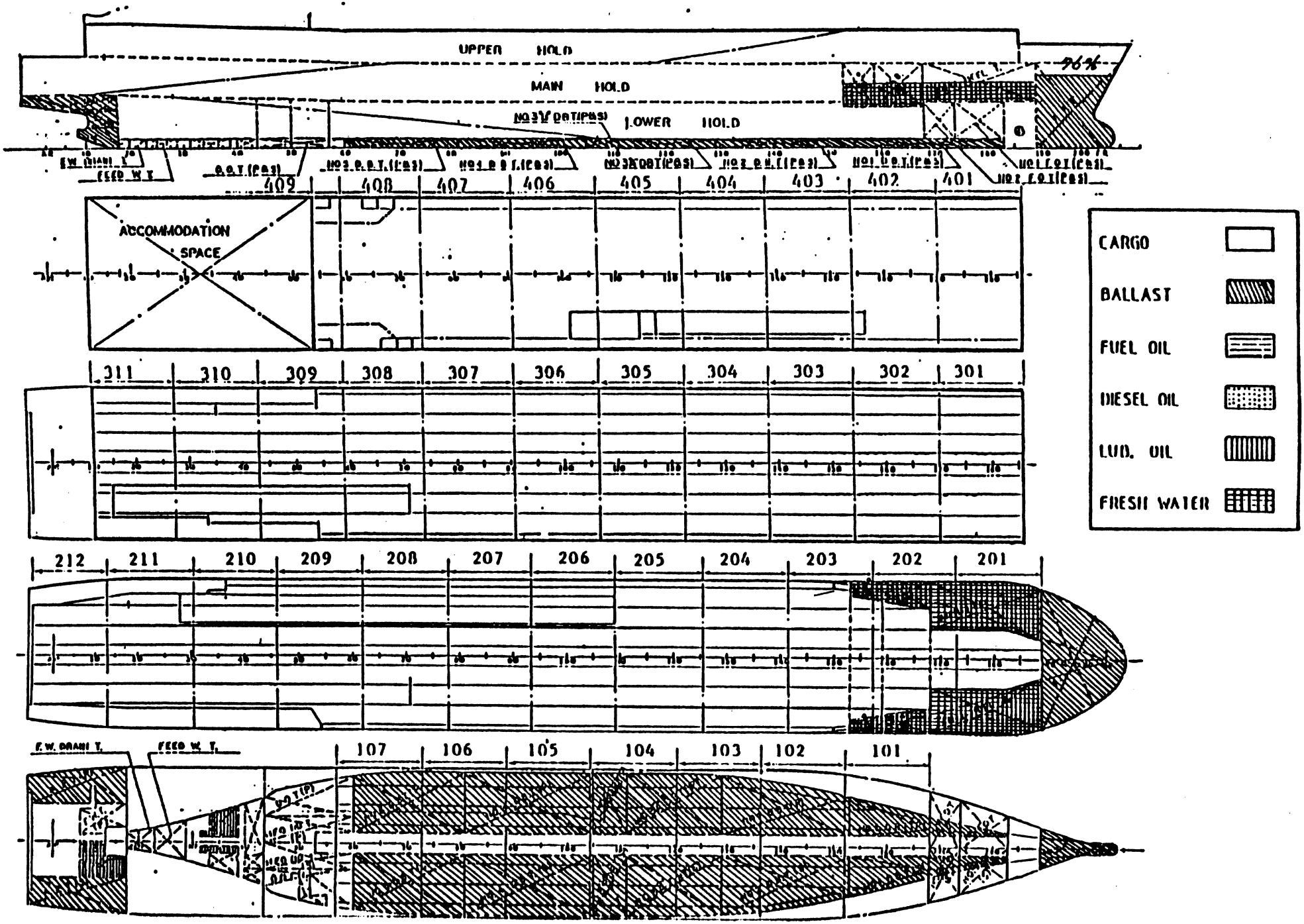


CALCULATION OF GZ-CURVE IS BASED ON INTERPOLATED CROSS CURVE DATA
SPLINE INTERPOLATION IN CROSS CURVES, CALCULATED POINTS ARE MARKED BY '*'

AREAS UNDER GZ-CURVE

0 - 60.0	(MAX GZ)	: 1.287	m*Rad
0 - 15.0		: .093	m*Rad
0 - 20.0		: .163	m*Rad
0 - 30.0		: .359	m*Rad
0 - 40.0		: .651	m*Rad
30 - 40.0		: .271	m*Rad

CONDITION : (2)-2. Ballast loading arrival



PILOT LOADING CALCULATION
NV5010 SHA-1035/36 DWT. 9,700 MT RO/RO VESSEL 86.12.13 SC/WON

L O A D I N G C O N D I T I O N : (2)-2 - Ballast Load ARR

PART CONDITION INCLUDED : BAL - Ballast(S.G=1.025)
S-ABC - Stab(A+B) & A/H Tk
APR - Consumables (ARR)
DWC(2) - Dead weight const.

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS* (tm)
	STABILIZER SYSTEM						
S 10	Stabilizer(A) Tank	129.2	7.840	1013	42.610	5505	2436.0
S 20	Stabilizer(B) Tank	194.6	8.020	1561	48.520	9442	3826.0
		323.8	7.948	2574	46.162	14947	6262.0
	ANTI-HEELING SYS.						
A 31	A/H Tank (Closed)	401.5	8.820	3541	59.440	23865	344.0
		401.5	8.820	3541	59.440	23865	344.0
	BALLAST						
FPT	FORE PEAK TANK	544.4	7.990	4350	73.270	39888	2124.8
DB 10	No.1 D. B. T.(P&S)	192.2	.950	183	47.650	9158	0.0
DB 20	No.2 D. B. T.(P&S)	456.8	.870	397	29.870	13645	0.0
DBA30	No.3 "A"D.B.T(P&S)	422.6	.840	355	13.730	5802	0.0
DBB31	No.3 "B" D.B.T.(P)	66.0	.800	53	4.330	286	0.0
DBB32	No.3 "B" D.B.T.(S)	71.5	.840	60	4.200	300	0.0
DB 41	No.4 D. B. T. (P)	228.8	.720	165	-7.830	-1792	0.0
DB 42	No.4 D. B. T. (S)	286.1	.840	240	-7.790	-2229	0.0
DB 51	No.5 D. B. T. (P)	186.3	.740	138	-25.530	-4756	0.0
DB 52	No.5 D. B. T. (S)	235.5	.860	203	-25.540	-6026	0.0
APT11	AFT PEAK TANK (P)	118.0	7.400	873	-74.090	-8743	0.0
APT12	AFT PEAK TANK (S)	178.1	6.290	1120	-72.980	-12998	0.0
		2986.3	2.725	8137	10.895	32536	2124.8
	CONSUMABLES						
FO 41	H.F.O. SER. TANK	14.1	5.530	78	-47.800	-674	1.0
FO 42	H.F.O. SETT. TANK	18.3	5.870	107	-49.810	-912	2.0
DO 21	D. O. SER. TANK	8.7	4.470	39	-37.400	-325	0.0
DO 22	D. O. SETT. TANK	8.7	4.470	39	-37.400	-325	0.0
LO 10	L.O.SUMP TANK(P&S)	13.0	.940	12	-54.470	-708	3.6
LO 20	L. O. CLEAN TANK	7.0	.650	5	-53.180	-372	9.9
FW 12	FRESH W. TANK (S)	31.0	5.950	184	-71.340	-2212	89.0
FW 20	FEED WATER TANK	7.5	.320	2	-61.210	-459	65.0
		108.3	4.310	467	-55.284	-5987	170.5
	MISCELLANEOUS						
DW 10	Dead weight const.	110.3	9.940	1096	-22.350	-2465	516.0
		110.3	9.940	1096	-22.350	-2465	516.0

PILOT LOADING CALCULATION PAGE 9
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL 86.12.13 SCKWON

DEADWEIGHT ..... :	3930.2	4.024	15815	16.003	62896	9417.3
LIGHT SHIP WEIGHT :	7350.0	10.300	75705	-12.850	-94448	
DISPLACEMENT .... :	11280.2	8.113	91520	-2.797	-31551	9417.3

D R A U G H T A N D T R I M

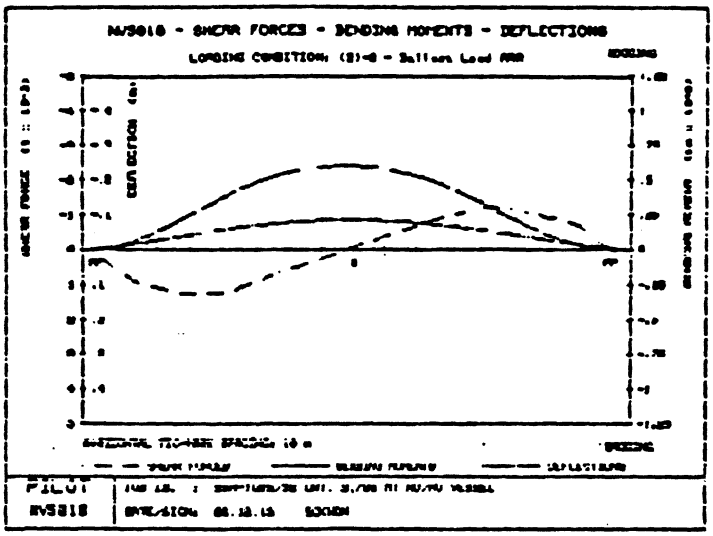
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	11005.073 m3
DRAUGHT AT AP (BASELINE)	:	4.976 m
--- '' --- FP (-- '' --)	:	4.319 m
--- '' --- LBP/2 (-- '' --)	:	4.648 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	4.996 m
--- '' --- FP (----- '' -----)	:	4.339 m
--- '' --- LBP/2 (----- '' -----)	:	4.668 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	.657 m

M A X I M U M V A L U E S

LONG. POS.	SHEAR FORCES		BENDING MOMENTS		DEFLECTIONS
(m)	(t)	(kN)	(tm)	(kNm)	(m)
-39.400	1250	12262			
40.200	-1217	-11939			
-2.788			60187	590233	
-1.400					-.086

BENDING MOMENT CORRECTION AT FWD. END ..... : 202 tm

PILOT LOADING CALCULATION
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL



TABLES OF RESULTS

LONG. POSITION (FRAME)		LONG. POSITION (GLOBAL) (m)	SHEAR FORCES (t)	SHEAR FORCES (kN)	BENDING MOMENTS (tm)	BENDING MOMENTS (kNm)	DEFLECT. (OPTIONAL) (m)
F-7	+.4	-82.400	0	0	0	0	0.000
F-7	+.42	-82.380	2	18	-0	-0	-0.000
F-5		-81.600	80	787	31	304	-.001
F-5	+.2	-81.400	84	821	47	462	-.001
F-1		-79.200	128	1251	275	2693	-.003
F-1	+.2	-79.000	133	1301	300	2946	-.003
F0		-78.600	148	1447	356	3491	-.004
F1	+.5	-77.500	216	2123	555	5441	-.005
F3	+.05	-76.750	261	2564	733	7191	-.006
F3	+.35	-76.450	278	2722	814	7980	-.006
F4		-76.200	294	2878	885	8677	-.007
F6		-75.000	374	3663	1283	12586	-.008
F8		-73.800	463	4537	1783	17490	-.009
F10		-72.600	549	5386	2389	23428	-.011
F14		-70.200	696	6821	3880	38048	-.014
F15		-69.600	734	7202	4308	42247	-.015
F18		-67.800	854	8380	5737	56258	-.017
F20		-66.200	894	8763	7134	69961	-.019

PILOT LOADING CALCULATION PAGE 11
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL 86.12.13 SCKWON

LONG. POSITION (FRAME)	(GLOBAL) (m)	SHEAR FORCES (t)	(kN)	BENDING MOMENTS (tm)	(kNm)	DEFLECT. (OPTIONAL) (m)
F21	-65.400	917	8994	7858	77057	-.021
F23	-63.800	967	9481	9364	91830	-.023
F24	-63.000	989	9700	10146	99494	-.024
F26	-61.400	1032	10124	11763	115356	-.026
F28	-59.800	1061	10406	13437	131774	-.029
F28 +.4	-59.400	1067	10467	13862	135944	-.029
F29	-59.000	1083	10618	14292	140156	-.030
F30	-58.200	1106	10845	15167	148737	-.031
F31	-57.400	1123	11014	16058	157475	-.032
F33	-55.800	1163	11402	17884	175386	-.035
F38	-51.800	1229	12056	22671	222329	-.041
F39	-51.000	1234	12103	23656	231983	-.042
F42	-48.600	1240	12163	26623	261086	-.046
F44	-47.000	1244	12198	28609	280558	-.048
F45	-46.200	1238	12143	29601	290285	-.049
F46 +.2	-45.200	1241	12168	30839	302429	-.051
F47	-44.600	1236	12125	31582	309709	-.052
F51	-41.400	1233	12089	35525	348382	-.056
F52	-40.600	1243	12191	36515	358087	-.057
F53 +.4	-39.400	1250	12262	38011	372756	-.059
F54	-39.000	1247	12227	38510	377649	-.060
F55	-38.200	1215	11914	39493	387296	-.061
F57	-36.600	1168	11455	41398	405973	-.063
F60	-34.200	1035	10148	44039	431874	-.066
F68 +.3	-27.500	813	7973	50220	492487	-.073
F71	-25.400	744	7300	51852	508498	-.075
F81	-17.400	478	4686	56724	556275	-.081
F101	-1.400	-45	-440	60154	589911	-.086
F102+.6	0.000	-89	-871	60059	588977	-.086
F105	1.800	-145	-1423	59846	586891	-.086
F107	3.400	-194	-1907	59572	584204	-.086
F109	5.000	-244	-2389	59220	580745	-.085
F111	6.600	-292	-2860	58789	576524	-.085
F114	9.000	-363	-3564	58000	568788	-.084
F117	11.400	-435	-4269	57039	559359	-.083
F129	21.000	-716	-7017	51495	504995	-.077
F137+.1	27.500	-896	-8783	46249	453551	-.071
F153	40.200	-1217	-11939	32737	321044	-.056
F155	41.800	-1210	-11865	30793	301978	-.053
F156	42.600	-1206	-11822	29826	292493	-.052
F159	45.000	-1191	-11677	26946	264253	-.049
F168	52.200	-1108	-10870	18640	182792	-.039
F183	64.200	-844	-8276	6935	68010	-.022
F184	65.000	-827	-8108	6266	61447	-.021
F186	66.600	-780	-7652	4975	48793	-.019
F187	67.400	-749	-7345	4363	42788	-.018
F188	68.200	-729	-7147	3771	36985	-.017
F189	69.000	-711	-6977	3194	31325	-.016
F191	70.200	-601	-5892	2406	23593	-.014
F193	71.400	-504	-4943	1743	17089	-.013
F194	72.000	-456	-4473	1454	14258	-.012
F197	73.800	-288	-2828	785	7696	-.010
F198	74.400	-240	-2354	626	6135	-.010
F202	76.800	-117	-1147	202	1977	-.007
F205	78.600	-37	-358	67	655	-.005

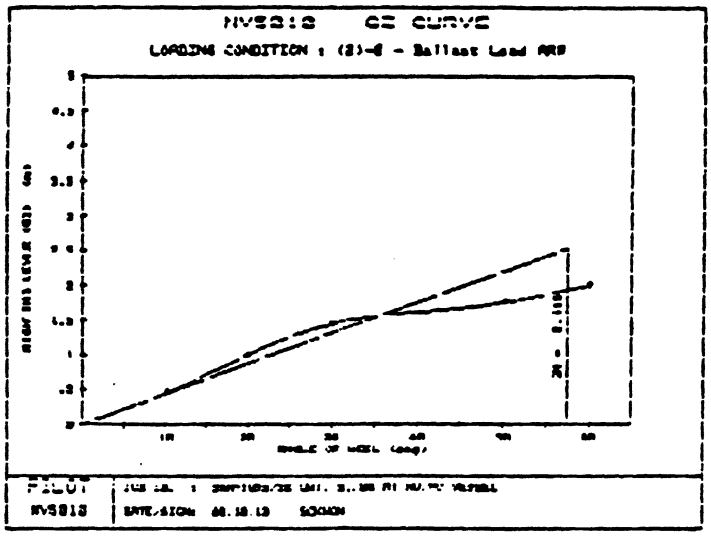
LONG. POSITION (FRAME)	(GLOBAL) (m)	SHEAR FORCES (t)	(kN)	BENDING MOMENTS (tm)	(kNm)	DEFLECT. (OPTIONAL) (m)
F210	81.600	-5	-50	11	103	-.003
F212+.2	83.000	-2	-24	4	35	-.001
F214+.5	84.500	0	0	0	0	-0.000

METACETPIC HEIGHT

FREE SURFACE CORRECTION	:	.935 m
CORRECTED VCG	:	8.948 m
CORRECTED GMT	:	2.515 m

STABILITY LEVERS

ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	.001	0.000
10.0	.458	2.011
20.0	1.002	4.061
30.0	1.444	5.917
40.0	1.605	7.356
50.0	1.745	8.599
60.0	1.991	9.740
60.0 (MAX GZ)	1.991	9.741

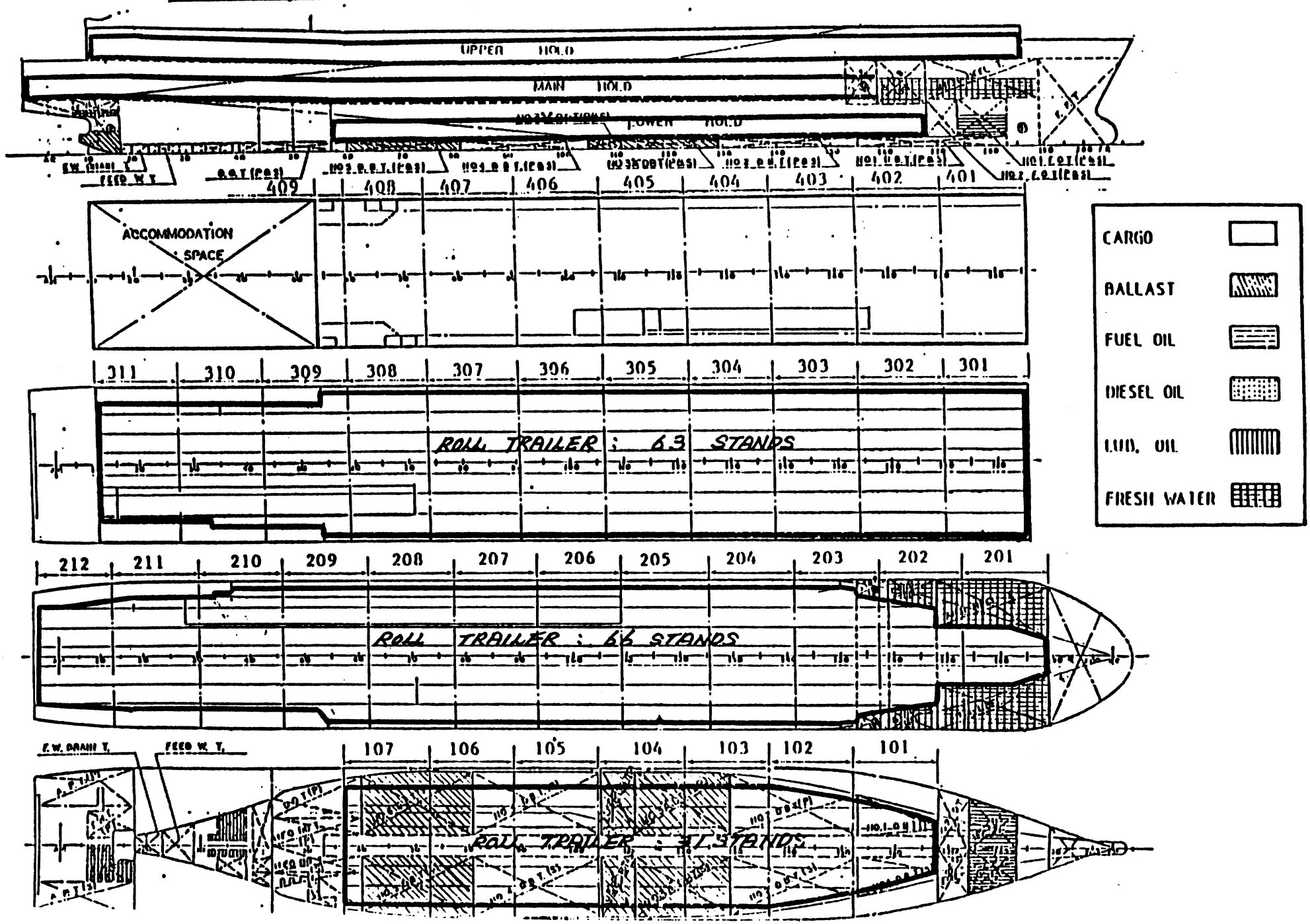


CALCULATION OF GZ-CURVE IS BASED ON INTERPOLATED CROSS CURVE DATA
SPLINE INTERPOLATION IN CROSS CURVES. CALCULATED POINTS ARE MARKED BY '*

A R E A S U N D E R G Z - C U R V E

0 - 60.0	(MAX GZ)	:	1.26*	m*Rad
0 - 15.0		:	.094	m*Rad
0 - 20.0		:	.165	m*Rad
0 - 30.0		:	.393	m*Rad
0 - 40.0		:	.651	m*Rad
30 - 40.0		:	.267	m*Rad

CONDITION : (3)-1. Basic (R-TIR : 160ST, Case 1) full loaded departure



PILOT LOADING CALCULATION
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL 86.12.13 SCKWON

L O A D I N G C O N D I T I O N : (3)-1 - Basic(Case 1) DEP

PART CONDITION INCLUDED :
R-TRA - R-Trailer (160 ST)
S-BC - Stab.(B) & A/H Tk
BAL-3 - Ballast(S.G=1.025)
DEP - Consumables (DEP)
DWC(1) - Dead weight const.

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	ROLL TRAILER						
TRA 1	No. 1 Lane: 5 ST	278.5	4.001	1114	-3.682	-1025	0.0
TRA 2	No. 2 Lane: 6 ST	334.2	4.001	1337	4.538	1517	0.0
TRA 3	No. 3 Lane: 6 ST	334.2	4.001	1337	11.900	3977	0.0
TRA 4	No. 4 Lane: 6 ST	334.2	4.001	1337	7.708	2576	0.0
TRA 5	No. 5 Lane: 3 ST	167.1	4.001	669	26.600	4445	0.0
TRA 6	No. 6 Lane: 2 ST	111.4	4.001	446	17.075	1902	0.0
TRA 7	No. 7 Lane: 3 ST	167.1	4.001	669	-16.650	-2782	0.0
TRA 8	No. 8 Lane: 6 ST	334.2	9.607	3211	1.200	401	0.0
TRA 9	No. 9 Lane: 10 ST	557.0	9.801	5459	-11.500	-6406	0.0
TRA 10	No.10 Lane: 11 ST	612.7	9.783	5994	-5.150	-3155	0.0
TRA 11	No.11 Lane: 11 ST	612.7	9.754	5976	-1.976	-1211	0.0
TRA 12	No.12 Lane: 11 ST	612.7	9.783	5994	-5.150	-3155	0.0
TRA 13	No.13 Lane: 10 ST	557.0	9.801	5459	-11.500	-6406	0.0
TRA 14	No.14 Lane: 7 ST	389.9	9.639	3758	-5.150	-2008	0.0
TRA 15	No.15 Lane: 7 ST	389.9	15.501	6044	19.621	7650	0.0
TRA 16	No.16 Lane: 6 ST	334.2	15.501	5180	28.300	9458	0.0
TRA 17	No.17 Lane: 6 ST	334.2	15.501	5180	28.300	9458	0.0
TRA 18	No.18 Lane: 7 ST	389.9	15.501	6044	20.307	7918	0.0
TRA 19	No.19 Lane: 7 ST	389.9	15.501	6044	21.809	8503	0.0
TRA 20	No.20 Lane: 7 ST	389.9	15.501	6044	21.809	8503	0.0
TRA 21	No.21 Lane: 7 ST	389.9	15.501	6044	21.809	8503	0.0
TRA 22	No.22 Lane: 4 ST	222.8	15.559	3467	-26.340	-5869	0.0
TRA 23	No.23 Lane: 3 ST	167.1	16.099	2690	-53.050	-8865	0.0
TRA 24	No.24 Lane: 3 ST	167.1	16.099	2690	-53.050	-8865	0.0
TRA 25	No.25 Lane: 3 ST	167.1	15.938	2663	-46.703	-7804	0.0
TRA 26	No.26 Lane: 3 ST	167.1	15.938	2663	-46.703	-7804	0.0
		8912.0	10.942	97513	1.061	9457	0.0
	STABILIZER SYSTEM						
S 20	Stabilizer(B) Tank	194.6	8.020	1561	48.520	9442	3826.0
		194.6	8.020	1561	48.520	9442	3826.0
	ANTI-HEELING SYS.						
A 31	A/H Tank (Closed)	401.5	8.820	3541	59.440	23865	344.0
		401.5	8.820	3541	59.440	23865	344.0
	BALLAST						

PILOT LOADING CALCULATION PAGE 101
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DBA30	No.3 "A"D.B.T(P&S)	422.6	.840	355	13.730	5802	0.0
DB831	No.3 "B" D.B.T.(P)	66.0	.800	53	4.330	286	0.0
DB832	No.3 "B" D.B.T.(S)	69.9	.820	57	4.200	294	244.0
DB 51	No.5 D. B. T. (P)	186.3	.740	138	-25.530	-4756	0.0
DB 52	No.5 D. B. T. (S)	235.5	.860	203	-25.590	-6026	0.0
		980.3	.822	805	-4.489	-4401	244.0
	CONSUMABLES						
FO 11	No.1 H.F.O.T (P)	77.7	3.160	246	60.310	4686	161.4
FO 12	No.1 H.F.O.T (S)	89.9	3.360	302	60.310	5422	161.4
FO 41	H.F.O. SER. TANK	14.1	5.530	78	-47.800	-674	1.0
FO 42	H.F.O. SETT. TANK	18.3	5.870	107	-49.810	-912	2.0
DO 21	D. O. SER. TANK	8.7	4.470	39	-37.400	-325	0.0
DO 22	D. O. SETT. TANK	8.7	4.470	39	-37.400	-325	0.0
LO 10	L.O.SUMP TANK(P&S)	13.0	.940	12	-54.470	-708	3.6
LO 20	L. O. CLEAN TANK	7.0	.650	5	-53.180	-372	9.9
FW 12	FRESH W. TANK (S)	50.0	6.240	312	-71.510	-3576	89.0
FW 20	FEED WATER TANK	25.5	.780	20	-61.220	-1561	65.0
		312.9	3.705	1159	5.288	1655	493.2
	MISCELLANEOUS						
DW 10	Dead weight const.	110.3	9.940	1096	-22.350	-2465	516.0
DW 20	Cool. water:APT(S)	17.7	1.470	26	-69.640	-1233	4.0
		128.0	8.769	1122	-28.889	-3698	520.0
	DEADWEIGHT ..... :	10929.3	9.672	105703	3.323	36320	5427.2
	LIGHT SHIP WEIGHT :	7350.0	10.300	75705	-12.850	-94448	
	DISPLACEMENT .... :	18279.3	9.924	181408	-3.180	-58127	5427.2

DRAUGHT AND TRIM

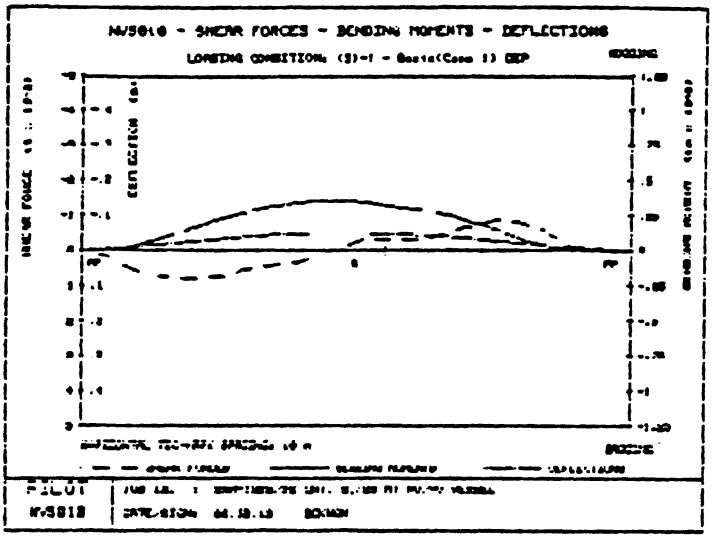
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	17833.463 m3
DRAUGHT AT AP (BASELINE)	:	6.983 m
--- '' --- FP (-- '' --)	:	6.976 m
--- '' --- LBP/2 (-- '' --)	:	6.980 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	7.003 m
--- '' --- FP (----- '' -----)	:	6.996 m
--- '' --- LBP/2 (----- '' -----)	:	7.000 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	.008 m

PILOT LOADING CALCULATION
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL

MAXIMUM VALUES

LONG. POS. (m)	SHEAR FORCES (t)	SHEAR FORCES (kN)	BENDING MOMENTS (tm)	BENDING MOMENTS (kNm)	DEFLECTIONS (m)
-51.800	800	7846			
45.000	-874	-8570			
-7.288			35935	352399	
-5.084					-.050

BENDING MOMENT CORRECTION AT FWD. END ..... : 56 tm



PILOT LOADING CALCULATION
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL

86.12.13 SCKWON

TABLES OF RESULTS

LONG. POSITION (FRAME)		(GLOBAL) (m)	SHEAR FORCES (t)	(kN)	BENDING MOMENTS (tm)	(kNm)	DEFLECT. (OPTIONAL) (m)
F-7	+.4	-82.400	0	0	0	0	0.000
F-7	+.42	-82.380	2	17	0	0	-0.000
F-5		-81.600	69	674	27	267	-0.000
F-5	+.2	-81.400	69	677	41	402	-.001
F-1		-79.200	69	674	192	1886	-.002
F-1	+.2	-79.000	69	676	206	2020	-.002
F0		-78.600	74	725	234	2299	-.002
F1	+.5	-77.500	113	1103	337	3305	-.003
F3	+.05	-76.750	134	1319	430	4213	-.003
F3	+.35	-76.450	141	1382	471	4617	-.004
F4		-76.200	149	1458	507	4971	-.004
F6		-75.000	185	1819	707	6936	-.005
F8		-73.800	249	2446	968	9495	-.005
F10		-72.600	305	2996	1301	12761	-.006
F11		-72.000	327	3209	1491	14621	-.007
F14		-70.200	416	4080	2161	21193	-.006
F15		-69.600	445	4364	2419	23725	-.009
F18		-67.800	528	5178	3297	32332	-.010
F20		-66.200	569	5578	4175	40947	-.011
F21		-65.400	591	5798	4639	45497	-.012
F23		-63.800	635	6230	5622	55131	-.014
F24		-63.000	656	6433	6138	60196	-.014
F26		-61.400	694	6806	7220	70806	-.016
F28		-59.800	716	7022	8349	81877	-.017
F28	+.4	-59.400	720	7064	8636	84693	-.018
F29		-59.000	734	7196	8927	87544	-.018
F30		-58.200	749	7347	9521	93365	-.019
F31		-57.400	758	7437	10124	99280	-.019
F33		-55.800	781	7656	11354	111348	-.021
F38		-51.800	800	7846	14524	142432	-.025
F39		-51.000	795	7793	15162	148685	-.026
F40	+.4	-49.800	783	7679	16108	157967	-.027
F42		-48.600	775	7598	17043	167131	-.029
F42	+.4	-48.200	772	7572	17352	170163	-.028
F44		-47.000	768	7529	18275	179221	-.029
F45		-46.200	757	7427	18885	185201	-.030
F46	+.2	-45.200	754	7393	19641	192608	-.031
F47		-44.600	746	7314	20090	197018	-.031
F51		-41.400	722	7077	22434	220006	-.034
F52		-40.600	727	7127	23014	225689	-.035
F53	+.4	-39.400	726	7119	23886	234244	-.036
F54		-39.000	720	7057	24175	237078	-.036
F55		-38.200	684	6709	24736	242582	-.037
F56	+.4	-37.000	644	6311	25533	250390	-.037
F57		-36.600	632	6194	25788	252889	-.038
F58	+.4	-35.400	583	5714	26516	260032	-.039
F60		-34.200	538	5280	27188	266625	-.039
F68	+.3	-27.500	441	4322	30467	298782	-.044
F71		-25.400	410	4022	31360	307537	-.045
F74		-23.000	372	3649	32298	316735	-.046
F81		-17.400	333	3266	34267	336043	-.048
F90	+.4	-9.800	81	793	35834	351411	-.050

PILOT LOADING CALCULATION PAGE 104
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL 86.12.13 SCKWON

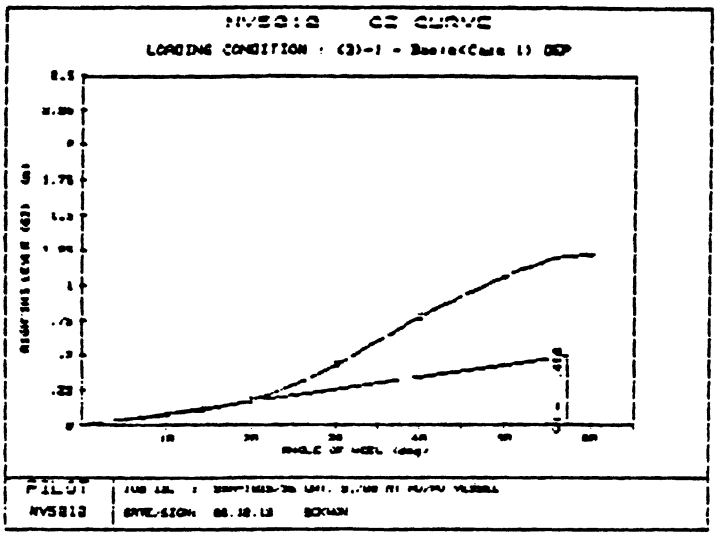
LONG. POSITION (FRAME)	(GLOBAL) (m)	SHEAR FORCES (t)	(kN)	BENDING MOMENTS (tm)	(kNm)	DEFLECT. (OPTIONAL) (m)
F101	-1.400	-190	-1861	35374	346904	-.050
F102+.6	0.000	-234	-2292	35077	343993	-.050
F105	1.800	-290	-2846	34605	339363	-.050
F106	2.600	-294	-2885	34371	337067	-.050
F107	3.400	-301	-2952	34133	334730	-.049
F108+.4	4.600	-312	-3058	33765	331119	-.049
F109	5.000	-313	-3072	33640	329891	-.049
F111	6.600	-319	-3130	33133	324922	-.049
F113	8.200	-325	-3183	32617	319867	-.048
F114	9.000	-324	-3174	32358	317322	-.048
F117	11.400	-321	-3149	31583	309728	-.047
F129	21.000	-308	-3022	28557	280050	-.044
F137+.1	27.500	-472	-4626	26007	255043	-.040
F140	29.800	-523	-5132	24861	243808	-.039
F152	39.400	-760	-7455	18598	182387	-.032
F155	41.800	-816	-8005	16703	163802	-.030
F156	42.600	-833	-8164	16043	157331	-.029
F159	45.000	-874	-8570	13992	137213	-.027
F159+.4	45.400	-868	-8510	13643	133796	-.027
F160	45.800	-863	-8464	13297	130400	-.026
F167+.4	51.800	-768	-7532	8354	81925	-.021
F168	52.200	-762	-7470	8048	78923	-.021
F173	56.200	-678	-6653	5154	50547	-.017
F174	57.000	-648	-6353	4624	45342	-.016
F183	64.200	-243	-2383	1383	13565	-.011
F183+.4	64.600	-222	-2181	1290	12650	-.011
F184	65.000	-205	-2011	1204	11811	-.011
F186	66.600	-134	-1315	929	9112	-.010
F186+.4	67.000	-123	-1208	878	8606	-.009
F187	67.400	-115	-1129	830	8138	-.009
F188	68.200	-108	-1059	741	7262	-.009
F189	69.000	-103	-1007	656	6431	-.008
F191	70.200	-105	-1031	530	5196	-.008
F193	71.400	-110	-1075	401	3929	-.007
F194	72.000	-109	-1065	335	3285	-.007
F197	73.800	-60	-586	181	1776	-.004
F198	74.400	-46	-449	149	1463	-.005
F202	76.800	-31	-306	54	530	-.004
F205	78.600	-2	-21	25	246	-.003
F210	81.600	-5	-50	8	78	-.001
F212+.2	83.000	-2	-24	2	22	-.001
F214+.5	84.500	0	0	0	0	0.000

METACETRIC HEIGHT

FREE SURFACE CORRECTION	:	.297 m
CORRECTED VCG	:	10.221 m
CORRECTED GMT	:	.496 m

STABILITY LEVERS

ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	.001	0.000
10.0	.076	1.850
20.0	.180	3.675
30.0	.430	5.540
40.0	.771	7.341
50.0	1.063	8.892
60.0	1.213	10.065
59.0 (MAX GZ)	1.214	9.975

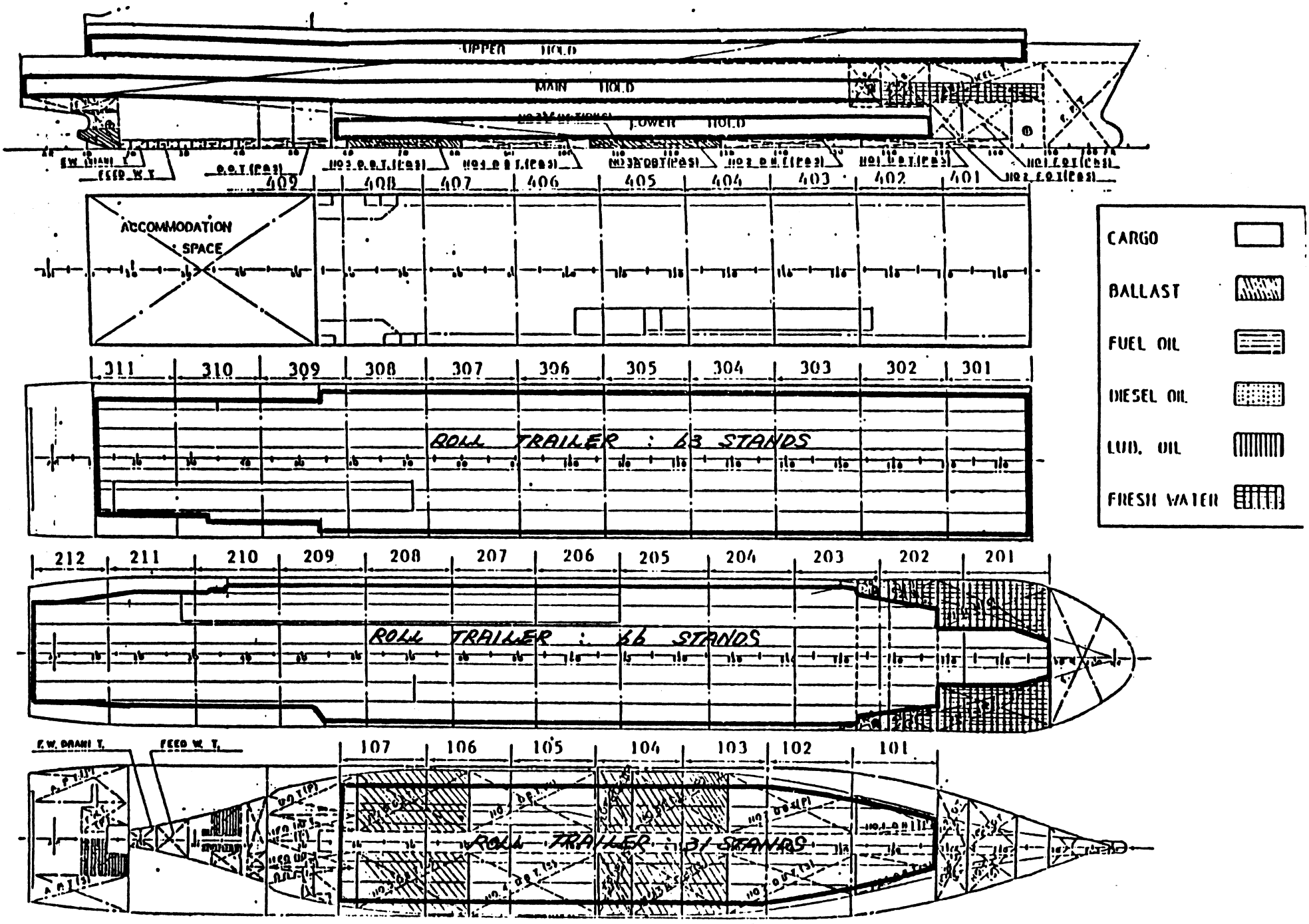


CALCULATION OF GZ-CURVE IS BASED ON INTERPOLATED CROSS CURVE DATA
SPLINE INTERPOLATION IN CROSS CURVES. CALCULATED POINTS ARE MARKED BY '*'

AREAS UNDER GZ-CURVE

0 - 59.0	(MAX GZ)	:	.526	m*Rad
0 - 15.0		:	.015	m*Rad
0 - 20.0		:	.029	m*Rad
0 - 30.0		:	.076	m*Rad
0 - 40.0		:	.184	m*Rad
30 - 40.0		:	.106	m*Rad

CONDITION : (3)-2. Basic (R-TIR : 160ST, Case 1) full loaded arrival



PILOT LOADING CALCULATION — PAGE 30
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL — 86.12.13 SCHNOOR

L O A D I N G C O N D I T I O N : (3+-2 - Basic Case 1 APR

PART CONDITION INCLUDED :
R-TRA - R-Trailer (160 ST)
S-BC - Stab.(B) & A/H Tk
BAL-3 - Ballast(S.G=1.025)
APR - Consumables (APP)
DWC(1) - Dead weight const.

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	ROLL TRAILER						
TRA 1	No. 1 Lane: 5 ST	278.5	4.001	1114	-3.682	-1025	0.0
TRA 2	No. 2 Lane: 6 ST	334.2	4.001	1337	4.538	1517	0.0
TRA 3	No. 3 Lane: 6 ST	334.2	4.001	1337	11.900	3977	0.0
TRA 4	No. 4 Lane: 6 ST	334.2	4.001	1337	7.708	2576	0.0
TRA 5	No. 5 Lane: 3 ST	167.1	4.001	669	26.600	4445	0.0
TRA 6	No. 6 Lane: 2 ST	111.4	4.001	446	17.075	1902	0.0
TRA 7	No. 7 Lane: 3 ST	167.1	4.001	669	-16.650	-2782	0.0
TRA 8	No. 8 Lane: 6 ST	334.2	9.607	3211	1.200	401	0.0
TRA 9	No. 9 Lane: 10 ST	557.0	9.801	5459	-11.500	-6406	0.0
TRA 10	No.10 Lane: 11 ST	612.7	9.783	5994	-5.150	-3156	0.0
TRA 11	No.11 Lane: 11 ST	612.7	9.754	5976	-1.976	-1211	0.0
TRA 12	No.12 Lane: 11 ST	612.7	9.783	5994	-5.150	-3156	0.0
TRA 13	No.13 Lane: 10 ST	557.0	9.801	5459	-11.500	-6406	0.0
TRA 14	No.14 Lane: 7 ST	389.9	9.639	3758	-5.150	-2008	0.0
TRA 15	No.15 Lane: 7 ST	389.9	15.501	6044	19.621	7650	0.0
TRA 16	No.16 Lane: 6 ST	334.2	15.501	5180	28.300	9458	0.0
TRA 17	No.17 Lane: 6 ST	334.2	15.501	5180	28.300	9458	0.0
TRA 18	No.18 Lane: 7 ST	389.9	15.501	6044	20.307	7918	0.0
TRA 19	No.19 Lane: 7 ST	389.9	15.501	6044	21.809	8503	0.0
TRA 20	No.20 Lane: 7 ST	389.9	15.501	6044	21.809	8503	0.0
TRA 21	No.21 Lane: 7 ST	389.9	15.501	6044	21.809	8503	0.0
TRA 22	No.22 Lane: 4 ST	222.8	15.559	3467	-26.340	-5869	0.0
TRA 23	No.23 Lane: 3 ST	167.1	16.099	2690	-53.050	-8865	0.0
TRA 24	No.24 Lane: 3 ST	167.1	16.099	2690	-53.050	-8865	0.0
TRA 25	No.25 Lane: 3 ST	167.1	15.938	2663	-46.703	-7804	0.0
TRA 26	No.26 Lane: 3 ST	167.1	15.938	2663	-46.703	-7804	0.0
		8912.0	10.942	97513	1.061	9457	0.0
	STABILIZER SYSTEM						
S 20	Stabilizer(B) Tank	194.6	8.020	1561	48.520	9442	3826.0
		194.6	8.020	1561	48.520	9442	3826.0
	ANTI-HEELING SYS.						
A 31	A/H Tank (Closed)	401.5	8.820	3541	59.440	23865	344.0
		401.5	8.820	3541	59.440	23865	344.0
	BALLAST						

PILOT LOADING CALCULATION PAGE 108
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL 86.12.13 SCKWON

DBA30	No.3 "A"D.B.T(P&S)	422.6	.840	355	13.730	5802	0.0
DB831	No.3 "B" D.B.T.(P)	66.0	.800	53	4.330	286	0.0
DB832	No.3 "B" D.B.T.(S)	69.9	.820	57	4.200	294	244.0
DB 51	No.5 D. B. T. (P)	186.3	.740	138	-25.530	-4756	0.0
DB 52	No.5 D. B. T. (S)	235.5	.860	203	-25.590	-6026	0.0
		980.3	.822	805	-4.489	-4401	244.0
	CONSUMABLES						
FO 41	H.F.O. SER. TANK	14.1	5.530	78	-47.800	-674	1.0
FO 42	H.F.O. SETT. TANK	18.3	5.870	107	-49.810	-912	2.0
DO 21	D. O. SER. TANK	8.7	4.470	39	-37.400	-325	0.0
DO 22	D. O. SETT. TANK	8.7	4.470	39	-37.400	-325	0.0
LO 10	L.O.SUMP TANK(P&S)	13.0	.940	12	-54.470	-708	3.6
LO 20	L. O. CLEAN TANK	7.0	.650	5	-53.180	-372	9.9
FW 12	FRESH W. TANK (S)	31.0	5.950	184	-71.340	-2212	89.0
FW 20	FEED WATER TANK	7.5	.320	2	-61.210	-459	65.0
		108.3	4.310	467	-55.284	-5987	170.5
	MISCELLANEOUS						
DW 10	Dead weight const.	110.3	9.940	1096	-22.350	-2465	516.0
DW 20	Cool. water;APT(S)	17.7	1.470	26	-69.640	-1233	4.0
		128.0	8.769	1122	-28.889	-3698	520.0
	DEADWEIGHT ..... :	10724.7	9.791	105019	2.674	28678	5104.4
	LIGHT SHIP WEIGHT :	7350.0	10.300	75705	-12.850	-94448	
	DISPLACEMENT .... :	18074.7	9.998	180715	-3.639	-65769	5104.4

D R A U G H T A N D T R I M

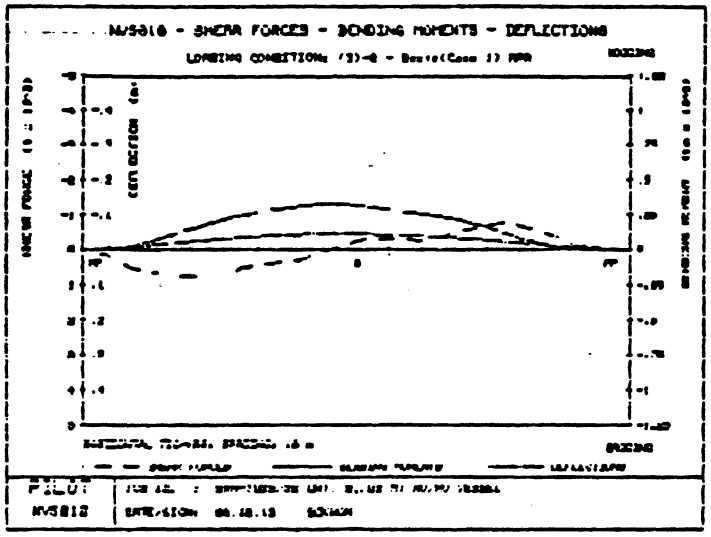
WATER DENSITY	:	1.0250	t/m3
VOLUME OF DISPLACEMENT	:	17633.854	m3
DRAUGHT AT AP (BASELINE)	:	7.038	m
--- '' --- FP (-- '' --)	:	6.766	m
--- '' --- LBP/2 (-- '' --)	:	6.902	m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	7.058	m
--- '' --- FP (----- '' -----)	:	6.786	m
--- '' --- LBP/2 (----- '' -----)	:	6.922	m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	.272	m

PILOT LOADING CALCULATION
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL

MAXIMUM VALUES

LONG. POS.	SHEAR FORCES		BENDING MOMENTS		DEFLECTIONS
(m)	(t)	(kN)	(tm)	(kNm)	(m)
-51.800	742	7279			
45.000	-773	-7576			
-8.240			32779	321452	
-5.084					-.046

BENDING MOMENT CORRECTION AT FWD. END ..... : 138 tm



PILOT LOADING CALCULATION PAGE 110
NV5010 SNA-1035/36 DWT. 9,700 MT RO/PO VESSEL 86.12.13 SCKWON

TABLES OF RESULTS

LONG. POSITION (FRAME)	LONG. POSITION (GLOBAL) (m)	SHEAR FORCES (t)	SHEAR FORCES (kN)	BENDING MOMENTS (tm)	BENDING MOMENTS (kNm)	DEFLECT. (OPTIONAL) (m)
F-7 +.4	-82.400	0	0	0	0	0.000
F-7 +.42	-82.380	2	16	0	0	-0.000
F-5	-81.600	68	665	26	260	-0.000
F-5 +.2	-81.400	68	666	40	391	-.001
F-1	-79.200	67	662	188	1839	-.002
F-1 +.2	-79.000	68	662	201	1970	-.002
F0	-78.600	72	706	228	2241	-.002
F1 +.5	-77.500	109	1074	328	3215	-.003
F3 +.05	-76.750	131	1281	417	4093	-.003
F3 +.35	-76.450	137	1342	457	4484	-.003
F4	-76.200	144	1414	492	4827	-.004
F6	-75.000	180	1763	686	6727	-.004
F8	-73.800	239	2340	936	9182	-.005
F10	-72.600	290	2842	1253	12285	-.006
F11	-72.000	309	3033	1432	14044	-.006
F14	-70.200	392	3842	2063	20233	-.007
F15	-69.600	419	4107	2306	22614	-.008
F18	-67.800	497	4871	3131	30704	-.009
F20	-66.200	536	5258	3957	38809	-.011
F21	-65.400	558	5473	4395	43098	-.011
F23	-63.800	601	5894	5322	52195	-.013
F24	-63.000	619	6067	5810	56974	-.013
F26	-61.400	650	6375	6826	66941	-.015
F28	-59.800	665	6520	7878	77259	-.016
F28 +.4	-59.400	667	6542	8144	79868	-.016
F29	-59.000	679	6655	8413	82505	-.017
F30	-58.200	694	6802	8962	87887	-.017
F31	-57.400	702	6886	9520	93361	-.018
F33	-55.800	724	7101	10660	104538	-.019
F38	-51.800	742	7279	13599	133357	-.023
F39	-51.000	737	7225	14190	139152	-.023
F40 +.4	-49.800	725	7109	15066	147745	-.024
F42	-48.600	716	7026	15930	156217	-.025
F42 +.4	-48.200	714	7000	16215	159019	-.026
F44	-47.000	709	6956	17068	167384	-.027
F45	-46.200	699	6854	17631	172902	-.027
F46 +.2	-45.200	695	6820	18327	179731	-.028
F47	-44.600	687	6741	18742	183795	-.029
F51	-41.400	664	6508	20898	204940	-.031
F52	-40.600	669	6560	21431	210163	-.032
F53 +.4	-39.400	668	6554	22233	218033	-.033
F54	-39.000	662	6493	22499	220640	-.033
F55	-38.200	627	6147	23014	225690	-.034
F56 +.4	-37.000	587	5753	23741	232821	-.034
F57	-36.600	575	5638	23973	235096	-.035
F58 +.4	-35.400	526	5163	24633	241567	-.035
F60	-34.200	483	4734	25238	247496	-.036
F68 +.3	-27.500	389	3815	28152	276080	-.040
F71	-25.400	360	3530	28937	283775	-.041
F74	-23.000	324	3177	29756	291804	-.042
F81	-17.400	291	2849	31468	308591	-.044
F90 +.4	-9.800	48	471	32743	321098	-.046

PILOT LOADING CALCULATION
NV5010 SNA-1035/36 DWT. 9,700 MT RO/RO VESSEL 86.12.13 SCKWON

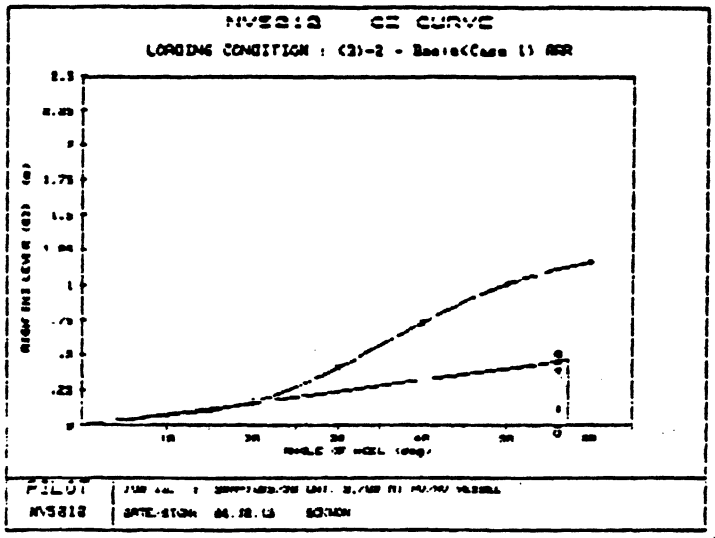
LONG. POSITION (FRAME)	(GLOBAL) (m)	SHEAR FORCES (t)	(kN)	BENDING MOMENTS (tm)	(kNm)	DEFLECT. (OPTIONAL) (m)
F101	-1.400	-209	-2054	32056	314363	-.046
F102+.6	0.000	-251	-2461	31733	311192	-.045
F105	1.800	-304	-2983	31232	306277	-.045
F106	2.600	-307	-3008	30987	303874	-.045
F107	3.400	-312	-3059	30738	301441	-.045
F108+.4	4.600	-320	-3142	30358	297709	-.044
F109	5.000	-321	-3149	30229	296447	-.044
F111	6.600	-324	-3175	29712	291372	-.044
F113	8.200	-326	-3195	29191	286264	-.043
F114	9.000	-323	-3169	28931	283712	-.043
F117	11.400	-315	-3094	28162	276177	-.042
F129	21.000	-279	-2739	25294	248052	-.039
F137+.1	27.500	-425	-4169	22986	225413	-.036
F140	29.800	-470	-4609	21954	215294	-.035
F152	39.400	-677	-6639	16339	160231	-.029
F155	41.800	-725	-7113	14652	143684	-.027
F156	42.600	-739	-7247	14065	137933	-.026
F159	45.000	-773	-7576	12246	120096	-.024
F159+.4	45.400	-765	-7504	11939	117077	-.024
F160	45.800	-759	-7445	11633	114084	-.024
F167+.4	51.800	-646	-6330	7367	72247	-.019
F168	52.200	-638	-6256	7110	69727	-.018
F183+.4	64.600	-232	-2280	1364	13373	-.010
F184	65.000	-218	-2135	1273	12486	-.010
F186	66.600	-144	-1413	979	9603	-.009
F186+.4	67.000	-133	-1300	924	9057	-.009
F187	67.400	-124	-1214	872	8551	-.008
F188	68.200	-116	-1133	776	7608	-.008
F189	69.000	-109	-1070	685	6719	-.007
F191	70.200	-110	-1080	552	5411	-.007
F193	71.400	-113	-1111	417	4087	-.006
F194	72.000	-112	-1096	349	3419	-.006
F197	73.800	-62	-603	190	1869	-.005
F198	74.400	-47	-463	156	1534	-.005
F202	76.800	-32	-309	58	571	-.004
F205	78.600	-2	-22	28	275	-.003
F210	81.600	-5	-50	9	93	-.001
F212+.2	83.000	-2	-24	3	30	-.001
F214+.5	84.500	0	0	0	0	0.000

METACETRIC HEIGHT

FREE SURFACE CORRECTION	:	.282 m
CORRECTED VCG	:	10.281 m
COPRECTED GMT	:	.468 m

STABILITY LEVERS

ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	.001	0.000
10.0	.071	1.856
20.0	.169	3.684
30.0	.409	5.548
40.0	.734	7.342
50.0	1.011	8.885
60.0	1.166	10.069
60.0 (MAX GZ)	1.166	10.069



CALCULATION OF GZ-CURVE IS BASED ON INTERPOLATED CROSS CURVE DATA
SPLINE INTERPOLATION IN CROSS CURVES. CALCULATED POINTS ARE MARKED BY '+'

A P E A S U N D E R G Z - C U R V E

0 - 60.0	(MAX GZ)	:	.521 m*Rad
0 - 15.0		:	.014 m*Rad
0 - 20.0		:	.026 m*Rad
0 - 30.0		:	.074 m*Rad
0 - 40.0		:	.174 m*Rad
30 - 40.0		:	.101 m*Rad