

TRIM AND STABILITY BOOKLET
FOR
SINGLE SCREW CARGO VESSEL

APPROVED
SUBJECT TO COMMENTS IN
COMMANDER, 12th Coast Guard District (mmt)
LETTER OF

JUN 24 1971

CB
CHIEF, MERCHANT MARINE TECHNICAL BRANCH
BY DIRECTION OF THE COMMANDER
TWELFTH COAST GUARD DISTRICT

SEA RACER CLASS
C 4-S-1q CONVERTED
PLAN NO. 60-S29-1-403

NAME - S S " PRESIDENT LINCOLN "	OFFICIAL NO. <u>285 311</u>
S S " PRESIDENT TYLER "	OFFICIAL NO. <u>286 232</u>

PACIFIC SHIP REPAIR
PIER 36 SAN FRANCISCO
APPROVED BY: _____

REVISED APRIL 1971 BY
PILLSBURY & MARTIGNONI
NAVAL ARCHITECTS & MARINE ENGRS

SAN FRANCISCO

PREPARED BY
GEORGE G. SHARP CO.
100 CHURCH ST.
NEW YORK CITY

OPERATING INSTRUCTIONS

These instructions are for use as an aid to operating personnel in using this booklet, which has been prepared to meet the requirements for one compartment subdivision. That is, if the stability requirements of this booklet are adhered to, the vessel shall survive flooding of any one main compartment without foundering or capsizing.

Pages 3, 4 and 5 of the trim and stability booklet provide: a table of principle characteristics, a trim table, and hydrostatic properties of this ship. Page 6 lists tank capacities and free surface with instructions for obtaining the free surface correction. Page 7 indicates the gain in GM by ballasting individual tanks at various displacements. Page 8 indicates the GM required for one-compartment damage at various drafts. Page 9 through Page 26 are work sheets for estimating the GM and trim of any condition of loading. Stabilogauges manufactured by the American Hydromath Company are furnished as a rapid method of determining the vessel's stability and freeboard. Operating instructions are furnished with each instrument. When the Stabilogauge is used to determine metacentric height, etc., for a condition of loading without reference to detail calculations, the functioning and accuracy of the instrument shall be checked immediately after use by resetting identical to a calculated condition of loading and the results compared.

In calculating the vessel's stability by the direct method, the amount of dry cargo, reefer cargo, container cargo, fuel oil, ballast and fresh water is entered on the loading table, Page 9. In order to meet stability requirements, vertical selective stowage of containers is necessary. Containers must be loaded so that the average unit weight of the containers stowed on the deck and the hatch covers (weather) is approximately 30% lighter than the average unit weight of those stowed below. Page 11 through 27 are work sheets to tabulate the container data before it is entered on Page 9. The summary of each item on Page 9 is transferred to Page 10 and summarized as to total displacement, KG, LCG and free surface. The mean S.W. draft corresponding to the total displacement is read from the hydrostatic table (Page 5) as is the KM corresponding to the mean draft. The KG subtracted from the KM gives the GM of the vessel uncorrected for free surface. The correction for free surface is obtained by dividing the total free surface by the total displacement and is subtracted from the uncorrected GM to give the corrected available GM. This GM should be compared with the required GM given on Page 8 for the mean draft of the vessel. A GM available greater than the GM required indicates sufficient stability. A GM available less than the GM required indicates insufficient stability. Such a condition should be corrected by ballasting enough tanks. The GM gain due to such ballasting is shown on Page 7 for individual tanks. It should be noted that GM as computed on Page 10 will be more accurate than that obtained by the Stabilogauge.

All double bottom tanks are to carry reserve fuel oil, 98% full, at all times. Fuel oil in deep tanks and settlers is referred to as useable fuel oil. As useable fuel oil is consumed, ballasting with salt water becomes necessary in order to maintain the required GM. This is illustrated by the loading conditions on Pages 28 through 45. Should it become necessary to use the reserve fuel oil, additional operating instructions and related loading conditions are presented on Pages 47 through 58.

In order to minimize the amount of oily ballast, fuel should first be consumed from Deep Tanks 4 through 11. These tanks should then be Butterworthed and filled with clean salt water ballast. Not more than one tank pair shall be allowed slack at one time.

1. Cross-connections between Deep Tanks 4 port and 5 starboard, between 6 port and 7 starboard, 8 port and 9 starboard, and 10 port and 11 starboard, should be closed whenever fuel oil or ballast is carried in these tanks. When Deep Tanks 4 through 11 are empty, cross-connections should be open. Closure is by means of blanks in the cross-connection lines, located inside the tanks.
2. Slack tanks should be as few in number as possible. Bunker oil should be drawn from only one pair of tanks or from one centerline tank at a time. When ballasting with salt water, press up tanks to overflow.
3. Cargo, fuel, and water should be loaded evenly port and starboard so that list will not exceed one or two degrees.
4. Permanent fresh water ballast shall be maintained pressed up at all times.
5. No permanent ballast shall be removed or altered without the approval of the cognizant officer in charge, Marine Inspection, USCG.

CALCULATION OF DRAFT AT MARKS

The notes and tabular format on Page 10 show how to calculate the draft at the forward and after draft marks after determining the mean draft total trim for 20 station length and LCF. Because the length between marks is 504.5 ft., the trim at the marks will be $504.5/520 = .97$ of the total trim for 20 station length.

Apportionment of the trim fore and aft depends on the location of the LCF (see Page 5) and the fact that the forward marks are 2.5 ft. abaft Station 0 and the after marks are 13.0 ft. forward of Station 20.

TABLE OF PRINCIPAL CHARACTERISTICS
C4-5-1q CONVERTED

LENGTH, OVERALL	563'-7 3/4"	PASSENGERS	12
LENGTH, B.P. (528'-6" A.B.S.)	528'-10 1/4"	CREW	60
LENGTH, 20 STATIONS	520'-0"	NO. OF CONTAINERS (8' X 8' X 20')	468 OR 392
BEAM, MOLDED	76'-0"	NO. OF CONTAINERS (8' X 8.5' X 40')	- OR 38
DEPTH TO MAIN DK, MLD. AT SIDE	44'-6"	GRAIN CUBIC	237,347 CU. FT.
DEPTH TO 2ND DK, MLD. AT SIDE	35'-6"	BALE CUBIC (INCL. CONT)	758,989 "
BULKHEAD DK.	MN. DK.	REEFER CARGO CUBIC	25,853 "
MACHINERY	GEARED TURBINE	FUEL OIL (D.B.'S + SETTLERS)	2,567.56 TONS
DESIGNED SEA SPEED	20 KNOTS	FUEL OIL (DEEP TANKS)	2,217.44 "
SHAFT HORSEPOWER, NORMAL	17,500	FUEL OIL (TOTAL)	4 785.01 "
SHAFT HORSEPOWER, MAXIMUM	19,250	FRESH WATER (POTABLE)	231.75 "
MAX. LOAD DRAFT, MLD.	31'-6"	FRESH WATER (DISTILLED)	25.00 "
MAX. LOAD DISPLACEMENT	22,630 TONS	NO. OF HOLDS	7
LIGHTSHIP	9,416 "	GROSS TONNAGE	13,265
LIGHTSHIP VCG	30.24 FT.	NET TONNAGE	8,037
LIGHTSHIP LCG AFT (520)	11.74 FT. A	MIDSHIPS FOR CALC (L = 520') 6" AFT. OF FR. 109	

NOTE: 1) THE LIGHTSHIP INFORMATION BASED ON U.S. COAST GUARD APPROVED INCLINING EXPERIMENT CONDUCTED AT WILLIAMETTE IRON & STEEL CO., RICHMOND, CALIF., ON DEC. 3, 1968.

2.a) THE LIGHTSHIP INFORMATION REVISED 16TH APRIL 1971 BY ADDITION OF FIXED BALLAST. U.S. COAST GUARD APPROVAL 23RD APRIL 1971.

b) THE CAPACITY & CONTAINER STOWAGE REVISED 16TH APRIL BY ADDITION OF CONTAINER STOWAGE. U.S. COAST GUARD APPROVAL

3. FIXED BALLAST	WT.	L.C.G	V.C.G
ROCK & GRAVEL	601.00 TONS	114.81' FWD	13.41'
FRESH WATER	414.52 TONS	99.01' AFT	13.00'

4. The light ship weight for the SS PRESIDENT TYLER as determined by a light ship check conducted in May 1971 and observed by the U. S. Coast Guard was calculated as 9430 tons. The light ship weight for the SS PRESIDENT LINCOLN was 9416 tons. Therefore, the deadweight for all loading conditions for the SS PRESIDENT TYLER will be 14 tons more than that shown herein, but the metacentric height (G.M.), drafts and trim for all practical purposes will be unaffected by the difference in light ship weight.

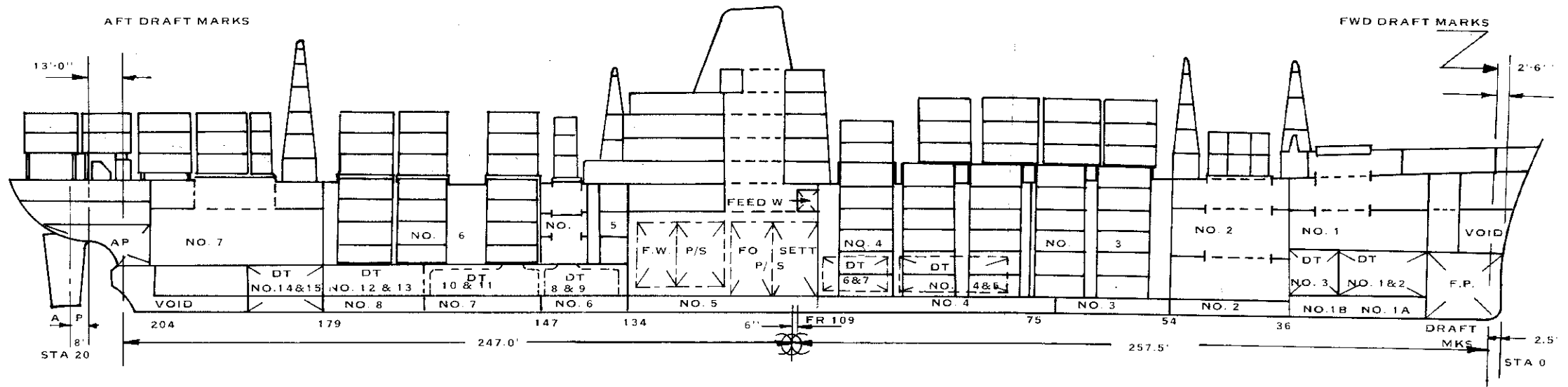


TABLE OF CORRECTIONS IN INCHES TO DRAFT FORWARD AND AFT FOR EACH 100 TONS LOADED AT ANY DISTANCE FROM AMIDSHIPS.

EXAMPLE -- FIND THE CHANGE IN TRIM AFTER LOADING 100 TONS IN NO. 2 HOLD (160 FEET FORWARD AMIDSHIPS)

	INITIAL DRAFT	FORWARD	19' - 6"	AFT	20' - 6"
	CORRECTION	FORWARD	+ 7.6"	AFT	- 4"
30' - 0" DRAFT	NEW DRAFT		20' - 2"		20' - 2"

FOR'D	-5.3	-5.0	-4.7	-4.4	-4.1	-3.9	-3.6	-3.3	-3.0	-2.7	-2.5	-2.2	-1.9	-1.6	-1.3	-1.1	-0.8	-0.5	-0.2	+0.1	+0.4	+0.6	+0.9	+1.2	+1.5	+1.8	+2.0	+2.3	+2.6	+2.9	+3.2	+3.4	+3.7	+4.0	+4.3	+4.6	+4.8	+5.1	+5.4	+5.7	+6.0	+6.2	+6.5	+6.8	+7.1	+7.4	+7.6	+7.9	+8.2	+8.5	+8.8	+9.0	+9.0	FOR'D	
AFT	+7.1	+6.8	+6.6	+6.4	+6.1	+5.9	+5.7	+5.4	+5.2	+4.9	+4.7	+4.5	+4.2	+4.0	+3.8	+3.5	+3.3	+3.0	+2.8	+2.6	+2.3	+2.1	+1.9	+1.6	+1.4	+1.1	+0.9	+0.7	+0.4	+0.2	0	-0.3	-0.5	-0.8	-1.0	-1.2	-1.5	-1.7	-1.9	-2.2	-2.4	-2.7	-2.9	-3.1	-3.4	-3.6	-3.8	-4.1	-4.3	-4.6	-4.8	-5.0	-5.3	-5.3	AFT

20' - 0" DRAFT

FOR'D	-7.2	-6.9	-6.5	-6.2	-5.8	-5.4	-5.1	-4.7	-4.4	-4.0	-3.7	-3.3	-3.0	-2.6	-2.3	-1.9	-1.6	-1.2	-0.9	-0.5	-0.1	+0.2	+0.6	+0.9	+1.3	+1.6	+2.0	+2.3	+2.7	+3.0	+3.4	+3.7	+4.1	+4.4	+4.8	+5.1	+5.5	+5.9	+6.2	+6.6	+6.9	+7.3	+7.6	+8.0	+8.3	+8.7	+9.0	+9.4	+9.7	+10.1	+10.4	+10.8	+11.1	FOR'D	
AFT	+9.6	+9.3	+9.0	+8.7	+8.4	+8.0	+7.7	+7.4	+7.1	+6.7	+6.4	+6.1	+5.8	+5.4	+5.1	+4.8	+4.5	+4.1	+3.8	+3.5	+3.2	+2.8	+2.5	+2.2	+1.9	+1.5	+1.2	+0.9	+0.6	+0.3	-0.1	-0.4	-0.7	-1.0	-1.4	-1.7	-2.0	-2.3	-2.7	-3.0	-3.3	-3.6	-4.0	-4.3	-4.6	-4.9	-5.3	-5.6	-5.9	-6.2	-6.6	-6.9	-7.2	-7.2	AFT

NOTES

- 1 - THE CORRECTIONS HAVE BEEN COMPUTED FOR THE TWO DRAFTS 10 FEET APART TO FACILITATE INTERPOLATION, BUT IN PRACTICE IT WILL BE ACCURATE ENOUGH TO REFER TO THE TABLE NEAREST THE SHIP'S DRAFT.
- 2 - WHEN DISCHARGING, USE THE TABLE AS LOADING AND CHANGE THE PLUS AND MINUS SIGNS.

HYDROSTATIC PROPERTIES
C4-S-1q Converted

MEAN DRAFT BOTTOM OF KEEL	TOTAL DISP. S. W. TONS	TRANSVERSE KM - MILD. FEET	TONS PER INCH IMMERSION	MOMENT TO TRIM 1" FT. TONS	L.C.B. AFT FEET	L.C.F. AFT FEET	MEAN DRAFT BOTTOM OF KEEL
31	22000	31.7	71	2000	10	23	31
30	21000	31.5	70	1950	9	22	30
29	20000	31.4	69	1900	8	21	29
28	19000	31.3	68	1850	7	20	28
27	18000	31.2	67	1800	6	19	27
26	17000	31.1	66	1750	5	18	26
25	16000	31.05	65	1700	4	17	25
24	15000	31.1	64	1650	3	16	24
23	14000	31.2	63	1600	2	15	23
22	13000	31.3	62	1550	1	14	22
21	12000	31.4	61	1500	0	13	21
20	11000	31.5	60	1450	0	12	20
19	10000	31.6	59	1400	0	11	19
18	9000	31.8	58	1350	0	10	18
17	8000	32.0	57	1300	0	9	17
16	7000	32.5	56	1250	0	8	16
15	6000	33.0	55	1200	0	7	15
14	5000	33.5	54	1150	0	6	14
13	4000	34.0	53	1100	0	5	13
12	3000	34.5	52	1050	0	4	12
11	2000	35.0	51	1000	0	3	11
10	1000	35.5	50	950	0	2	10
9	0	36.0	49	900	0	1	9

FUEL OIL AND BALLAST TANKS				COL. A	COL. B		
TANK	FRAMES	F.O. TONS 98%	S.W. TONS 100%	i SLACK	i 98%	V.C.G.	L.C.G.
D.B. 1A C L	14-24	48.60	52.75	114	59	4.52	220.15 F
D.B. 1B C L	24-36	82.67	89.73	463	158	4.56	195.13 F
D.B. 2 P	36-54	58.04	63.01	326	114	2.79	158.21 F
D.B. 2 S	36-54	57.89	62.83	326	114	2.79	158.21 F
D.B. 3 C L	54-71	127.19	138.05	1672	435	2.51	115.38 F
D.B. 3 P	54-71	28.89	31.35	114	52	3.19	112.05 F
D.B. 3 S	54-71	28.87	31.34	114	52	3.19	112.05 F
D.B. 4 C L	71-106	289.01	313.68	3442	895	2.46	51.77 F
D.B. 4 P	71-106	186.80	202.76	1822	419	2.67	46.82 F
D.B. 4 S	71-106	186.80	202.76	1822	419	2.67	46.82 F
D.B. 5 C L	106-127	170.41	184.97	2065	537	2.45	18.11 A
D.B. 5 P	106-134	178.88	194.17	2304	599	2.60	26.20 A
D.B. 5 S	106-134	172.29	187.01	2304	599	2.59	25.88 A
D.B. 6 C L	134-147	100.60	109.19	1279	332	2.39	77.77 A
D.B. 6 P	134-147	63.18	68.59	559	173	2.69	74.82 A
D.B. 6 S	134-147	63.18	68.59	559	173	2.69	74.82 A
D.B. 7 C L	147-164	135.01	146.53	1672	435	2.45	115.25 A
D.B. 7 P	147-164	47.25	51.29	276	130	2.93	108.99 A
D.B. 7 S	147-164	47.25	51.29	276	130	2.93	108.99 A
D.B. 8 P	164-179	59.79	64.90	412	148	2.75	153.91 A
D.B. 8 S	164-179	59.91	65.03	412	148	2.75	153.91 A
D.T. 1 S	14-28	99.69	108.22	44	44	16.58	214.29 F
D.T. 2 P	14-28	99.42	107.91	44	44	16.58	214.28 F
D.T. 3 C L	28-36	187.74	203.78	1169	1087	16.82	191.08 F
D.T. 4 P	78-94	117.55	127.59	123	105	13.02	56.89 F
D.T. 5 S	78-94	117.55	127.59	123	105	13.02	56.89 F
D.T. 6 P	96-105	76.92	83.49	90	75	12.87	21.69 F
D.T. 7 S	96-105	76.92	83.49	90	75	12.87	21.69 F
D.T. 8 P	135-146	192.80	209.27	1716	583	9.78	78.00 A
D.T. 9 S	135-146	159.35	172.96	1126	439	9.82	79.66 A
D.T. 10 P	147-163	223.09	242.14	1543	339	9.90	113.40 A
D.T. 11 S	147-163	223.09	242.14	1543	339	9.90	113.40 A
D.T. 12 P	164-179	211.92	230.03	1111	733	11.59	154.05 A
D.T. 13 S	164-179	211.92	230.03	1111	733	11.59	154.05 A
D.T. 14 P	179-190	109.74	119.11	204	171	9.73	186.76 A
D.T. 15 S	179-190	109.74	119.11	204	171	9.73	186.76 A
Fwd Sett P	106-113	100.87		20		19.06	0.75 A
Fwd Sett S	106-113	100.87		20		19.06	0.75 A
Aft Sett P	113-119	86.66		17		19.07	16.50 A
Aft Sett S	113-119	86.66		17		19.07	16.50 A

WATER TANKS				COL. A		
TANK	FRAMES	F.W. TONS 100%	S.W. TONS 100%	i SLACK	V.C.G.	L.C.G.
Potable Wtr P	120-127	60.67		2888	21.50	35.75 A
Potable Wtr S	120-127	62.49		2888	21.12	35.75 A
Potable Wtr P	127-133	52.05		2395	21.54	52.00 A
Potable Wtr S	127-133	56.54		2395	20.52	52.00 A
Forepeak	Stem-14		110.74		11.65	242.86F
Afterpeak	204-218		92.90		24.90	246.82A
Dist. Wtr C L	106-109	25.00		59	39.50	4.25 F

NOTES:

FUEL OIL AT 37.23 CU. FT. TON - 98% FULL
 FRESH WATER AT 36.0 CU. FT. TON - 100% FULL
 SALT WATER AT 35.0 CU. FT. TON - 100% FULL

FREE SURFACE CORRECTION PROCEDURE:

1. THE SETTLING TANKS ARE ALWAYS CONSIDERED SLACK. (USE FIGURES FROM COL. A)
2. FOR ALL DOUBLE BOTTOM TANKS, WHICH CARRY RESERVE FUEL OIL 98% FULL AT ALL TIMES, USE FIGURES FROM COL. B.
3. OF EACH TYPE OF LIQUID CARRIED ONBOARD, EXCLUDING THE DOUBLE BOTTOM TANKS, THE PAIR OF TANKS WITH THE LARGEST FREE SURFACE VALUE SHALL BE CONSIDERED SLACK. THEREFORE, THE FOLLOWING TANKS SHALL BE CONSIDERED SLACK:
 - a. FUEL OIL DEEP TANKS 10 & 11 (USE FIGURE FROM COL. A)
 - b. POTABLE WATER FWD P&S (USE FIGURE FROM COL. A)
 - c. DISTILLED WATER C L (USE FIGURE FROM COL. A)
 - d. OF THE TANKS CARRYING SALT WATER BALLAST, THE TANK, OR PAIR OF TANKS WITH THE LARGEST FREE SURFACE VALUE (USE FIGURE FROM COL. A MULTIPLIED BY 1.064 TO CORRECT FOR DENSITY.)
4. ALL OTHER 98% FULL FUEL OIL TANKS (USE FIGURE FROM COL. B)
5. ALL OTHER TANKS WHICH ARE EMPTY OR PRESSED UP WITH WATER. USE ZERO FOR THOSE TANKS.

SHOULD IT BECOME NECESSARY TO USE THE RESERVE FUEL OIL IN THE DOUBLE BOTTOM TANKS, USE THE FREE SURFACE CORRECTION PROCEDURE ON PAGE 46.

GAIN IN GM BY BALLASTING (FEET)

C4-S-1q Converted

DISPLACEMENT	TANK	D.B. 1A	D.B. 1B	D.B. 2	D.B. 3	D.B. 4	D.B. 5	D.B. 6	D.B. 7	D.B. 8	D.T. 1&2	D.T. 3	D.T. 4&5	D.T. 6&7	D.T. 8&9	D.T. 10&11	D.T. 12&13	D.T. 14&15
	TONS	53	90	126	201	719	566	246	249	130	216	204	253	167	382	484	460	238
8500		.12	.20	.25	.34	1.11	.89	.41	.41	.25	.02	.05	.13	.06	.35	.36	.29	.19
9000		.09	.15	.24	.32	1.09	.87	.41	.41	.24	.02	.05	.13	.08	.35	.36	.29	.20
9500		.08	.13	.20	.30	1.08	.84	.41	.41	.20	.02	.05	.13	.08	.35	.39	.30	.21
10000		.08	.13	.18	.30	1.07	.88	.41	.41	.18	.02	.06	.15	.10	.35	.42	.32	.22
10500		.08	.13	.18	.30	1.08	.90	.41	.41	.18	.04	.06	.16	.12	.35	.46	.35	.23
11000		.08	.13	.18	.30	1.10	.91	.41	.41	.18	.04	.07	.18	.14	.37	.48	.38	.25
11500		.07	.14	.18	.30	1.13	.92	.41	.41	.18	.08	.09	.19	.14	.40	.50	.41	.25
12000		.07	.14	.18	.30	1.15	.92	.41	.41	.18	.08	.09	.20	.14	.42	.51	.44	.25
12500		.07	.14	.18	.30	1.16	.92	.41	.41	.18	.11	.10	.21	.14	.42	.53	.46	.26
13000		.07	.14	.19	.30	1.17	.92	.41	.41	.19	.12	.11	.21	.15	.42	.54	.46	.27
13500		.07	.14	.19	.30	1.17	.92	.41	.41	.19	.12	.11	.21	.15	.42	.54	.46	.27
14000		.07	.14	.19	.30	1.18	.92	.41	.41	.19	.13	.13	.22	.15	.42	.55	.48	.27
14500		.08	.14	.19	.31	1.18	.92	.40	.40	.19	.13	.14	.22	.15	.42	.56	.48	.27
15000		.08	.14	.19	.31	1.18	.91	.40	.40	.19	.13	.14	.22	.15	.43	.57	.48	.27
15500		.08	.14	.20	.31	1.18	.91	.40	.40	.20	.16	.14	.22	.15	.43	.57	.48	.27
16000		.08	.14	.20	.31	1.18	.91	.40	.40	.20	.18	.15	.24	.15	.43	.57	.48	.28
16500		.08	.14	.20	.31	1.16	.91	.40	.40	.20	.21	.15	.24	.17	.43	.57	.49	.28
17000		.08	.14	.21	.31	1.16	.91	.40	.40	.21	.19	.16	.26	.17	.43	.57	.49	.28
17500		.08	.14	.21	.31	1.16	.91	.39	.39	.21	.19	.18	.26	.17	.43	.57	.49	.28
18000		.08	.15	.21	.31	1.14	.91	.39	.39	.21	.18	.18	.27	.17	.43	.57	.49	.28
18500		.08	.16	.21	.31	1.14	.91	.39	.39	.21	.18	.18	.27	.17	.43	.57	.49	.28
19000		.08	.17	.21	.31	1.14	.88	.39	.39	.21	.18	.18	.28	.17	.43	.57	.49	.28
19500		.08	.17	.21	.31	1.12	.88	.38	.38	.21	.18	.18	.28	.17	.43	.57	.49	.28
20000		.08	.17	.22	.31	1.10	.88	.38	.38	.22	.18	.19	.28	.17	.43	.57	.49	.28
20500		.08	.17	.22	.32	1.09	.86	.38	.38	.22	.18	.20	.28	.17	.43	.57	.49	.28
21000		.08	.17	.22	.32	1.09	.85	.38	.38	.22	.18	.20	.28	.17	.43	.57	.49	.28
21500		.08	.17	.22	.32	1.09	.85	.38	.38	.22	.18	.20	.28	.17	.43	.57	.49	.28
22000		.08	.17	.22	.32	1.09	.85	.38	.38	.22	.18	.20	.28	.17	.43	.57	.49	.28
22500		.08	.17	.22	.32	1.07	.84	.38	.38	.22	.18	.21	.28	.17	.43	.57	.49	.28
22630		.08	.17	.22	.32	1.03	.82	.38	.38	.22	.18	.21	.28	.17	.43	.57	.49	.28

GM

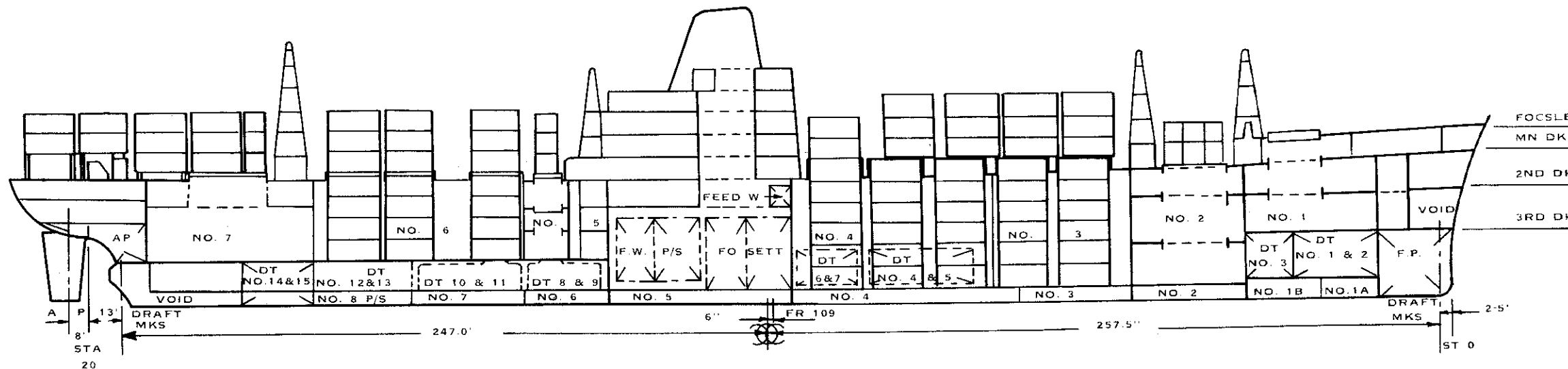
C4-S-1q Converted

DRAFT	REQUIRED GM DAMAGED STABILITY AND WIND HEEL	Required to Limit List to 6½° 30 TON BOOM	Required to Limit List to	
			3¼°	6½°
			CARGO CRANE	CARGO CRANE
31'-7-1/8"	1.50	.75	.83	.41
31'-0"	1.50	.77	.84	.42
30'-0"	1.48	.80	.88	.44
29'-0"	1.48	.83	.91	.46
28'-0"	1.51	.87	.95	.47
27'-0"	1.55	.91	.99	.50
26'-0"	1.53	.95	1.04	.52
25'-0"	1.58	.99	1.09	.54
24'-0"	2.02	1.04	1.14	.57
23'-0"	2.45	1.09	1.20	.60
22'-0"	2.85	1.15	1.26	.63
21'-0"	3.22	1.22	1.33	.66
20'-0"	3.57	1.29	1.41	.70
19'-0"	3.88	1.37	1.50	.75
18'-0"	4.15	1.45	1.59	.79
17'-0"	4.38	1.55	1.70	.85
16'-0"	4.55	1.67	1.83	.91
15'-0"	4.67	1.79	1.97	.98





DRY CARGO		LOCATION						REEFER CARGO	LOCATION								
		BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT		BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT			
NO. 1 MAIN DECK		13,930		56.71		203.44F		BOX 1 2ND DECK		3,359		40.49		82.38A			
2ND "		17,660		45.49		204.96F		" 2 " "		3,576		40.50		82.40A			
3RD "		10,222		32.15		201.52F		" 3 26'-6" FLAT		4,729		30.80		77.29A			
NO. 2 2ND "		26,185		43.72		159.43F		" 4 26'-6" FLAT		4,729		30.80		77.29A			
3RD "		27,800		29.26		158.57F		" 5 17'-0" FLAT		4,730		21.64		77.53A			
TANK TOP		19,587		13.12		157.71F		" 6 17'-0" FLAT		4,730		21.64		77.53A			
NO. 5 2ND DECK		4,875		41.69		85.89A		TOTAL REEFER.									
26'-6" FLAT		3,618		31.40		86.04A		TANK		F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	MOMENT	
17'-0" FLAT		4,174		21.66		85.97A		NO.1A D.B. C/L					4.52		220.15 F		
NO. 7 2ND DECK		32,470		42.25		207.92A		1B D.B. C/L					4.56		195.13 F		
" (SPEC P/S)		4,016		41.65		179.50A		2 D.B. P					2.79		158.21 F		
17'-0" FLAT		41,952		28.40		203.01A		2 D.B. S					2.79		158.21 F		
TOTAL DRY CARGO								3 D.B. C/L					2.51		115.38 F		
CONTAINER CARGO PLUS CONTAINERS		WEATHER	HOLD	ROW	NO. @20'	NO. @40'			3 D.B. P				3.19		112.05 F		
		"	2	1					3 D.B. S				3.19		112.05 F		
		"	2	2					4 D.B. C/L					2.46		51.77 F	
		"	2	3					4 D.B. P					2.67		46.82 F	
		"	3	1					4 D.B. S					2.67		46.82 F	
		"	3	2					5 D.B. C/L					2.45		18.11 A	
		"	4	1					5 D.B. P					2.60		26.20 A	
		"	4	2					5 D.B. S					2.59		25.88 A	
		"	4	3					6 D.B. C/L					2.39		77.77 A	
		"	5	1					6 D.B. P					2.69		74.82 A	
		"	6	1					6 D.B. S					2.69		74.82 A	
		"	6	2					7 D.B. C/L					2.45		115.25 A	
		"	6	2					7 D.B. P					2.93		108.99 A	
		"	6	3					7 D.B. S					2.93		108.99 A	
		"	7	1					8 D.B. P					2.75		153.91 A	
		"	7	1					8 D.B. S					2.75		153.91 A	
		"	7	2					1 D.T. S					16.58		214.29 F	
		"	7	3					2 D.T. P					16.58		214.28 F	
		"	7	3					3 D.T. C/L					16.82		191.08 F	
		"	7	3					4 D.T. P					13.02		56.89 F	
"	7	4					5 D.T. S					13.02		56.89 F			
"	7	5					6 D.T. P					12.87		21.69 F			
TOTAL WEATHER 20' CONTS							7 D.T. S					12.87		21.69 F			
AVERAGE UNIT WT.							8 D.T. P					9.78		78.00 A			
TOTAL WEATHER 40' CONTS							9 D.T. S					9.82		79.66 A			
AVERAGE UNIT WT.							10 D.T. P					9.90		113.40 A			
TOTAL WEATHER BELOW		3	1				11 D.T. S					9.90		113.40 A			
"	3	2					12 D.T. P					11.59		154.05 A			
"	4	1					13 D.T. S					11.59		154.05 A			
"	4	2					14 D.T. P					9.73		186.76 A			
"	4	3					15 D.T. S					9.73		186.76 A			
"	6	1					Fwd. Sett. P&S					19.06		0.75 A			
"	6	2					Aft. Sett. P&S					19.07		16.50 A			
"	6	3					Forepeak					11.65		242.86 F			
"	6	3					Afterpeak					24.90		246.82 A			
TOTAL BELOW							TOTAL F.O.										
AVERAGE UNIT WT.							TOTAL BALL.										
TOTAL 20' CONTAINER							Pot.W.Fwd.P&S					21.31		35.75A			
TOTAL 40' CONTAINER							Pot.W.Aft. P&S					21.53		52.00 A			
FROM PAGES 11-27								FRESH WATER									
								Dist. Water									
								Hot Wells				40.0		6.01			
								TOTAL F.W.									

AMERICAN PRESIDENT LINES CARGO VESSEL
VOYAGE NO.

U.S.M.A. C4-S-1q CONVERTED



ITEM	TONS	KG	VERTICAL MOMENT	LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30,24	284694	11.74A	110572A	
CREW & STORES						
LUBE OIL						
DRY CARGO						
CONTAINER CARGO & CONT'RS						
REEFER CARGO						
FUEL OIL						
SEA WATER BALLAST						
FRESH WATER						
TOTAL						

-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER

TRIM LEVER AFT:

TRIM FT (T 520)

CHANGE IN DRAFT FWD =
(257.5 + LCF) x T 520)

CHANGE IN DRAFT AFT =
(247.0 - LCF) x T 520)

MEAN S.W. DRAFT (SEE PAGE 5)

KM (SEE PAGE 5)

KG

GM

CORR FOR FREE SURFACE

GM AVAILABLE

GM REQUIRED (PAGE 8)

LCG 

LCB (SEE PAGE 5)

TRIM LEVER FWD, AFT

MOMENT TO TRIM 1"

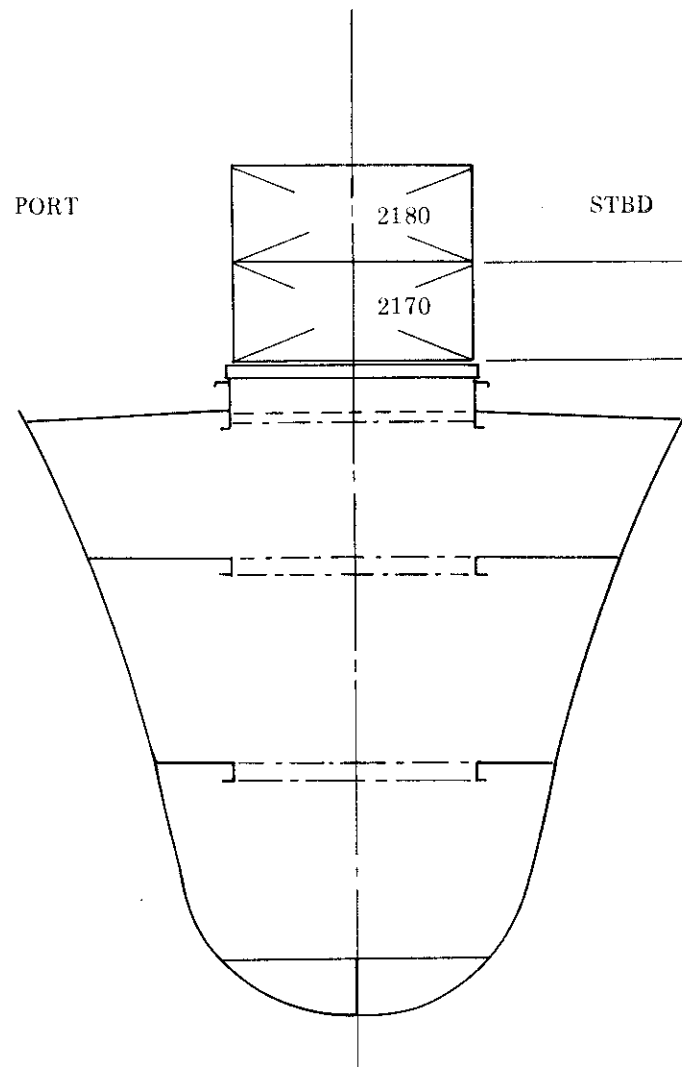
TRIM IN INCHES FWD, AFT

LCF  (PAGE 5)

DRAFT FWD _____ DRAFT AFT _____

C4-S-1q Converted
CONTAINER LOADING

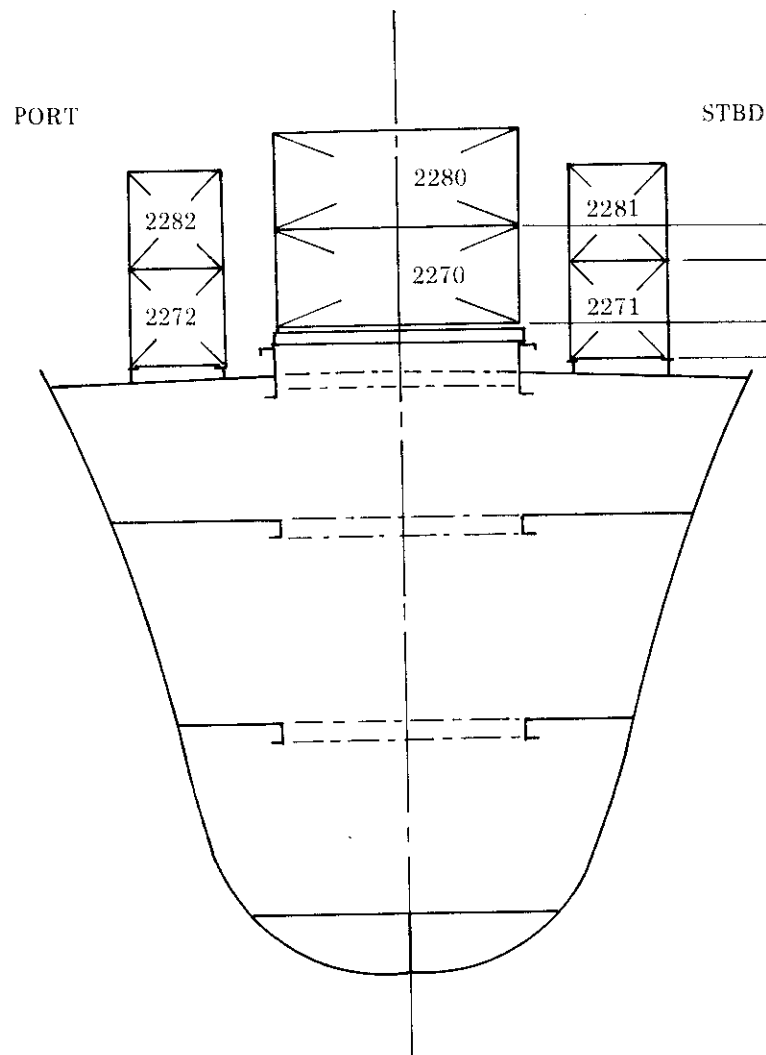
HOLD 2 ROW 1



TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG ∞	MOMENT
	CAPACITY	CARRIED					
8	1			64.8		171.5 F	
7	1			56.8		171.5 F	
TOTAL WEATHER		2				171.5 F	

C4-S-1q Converted
CONTAINER LOADING

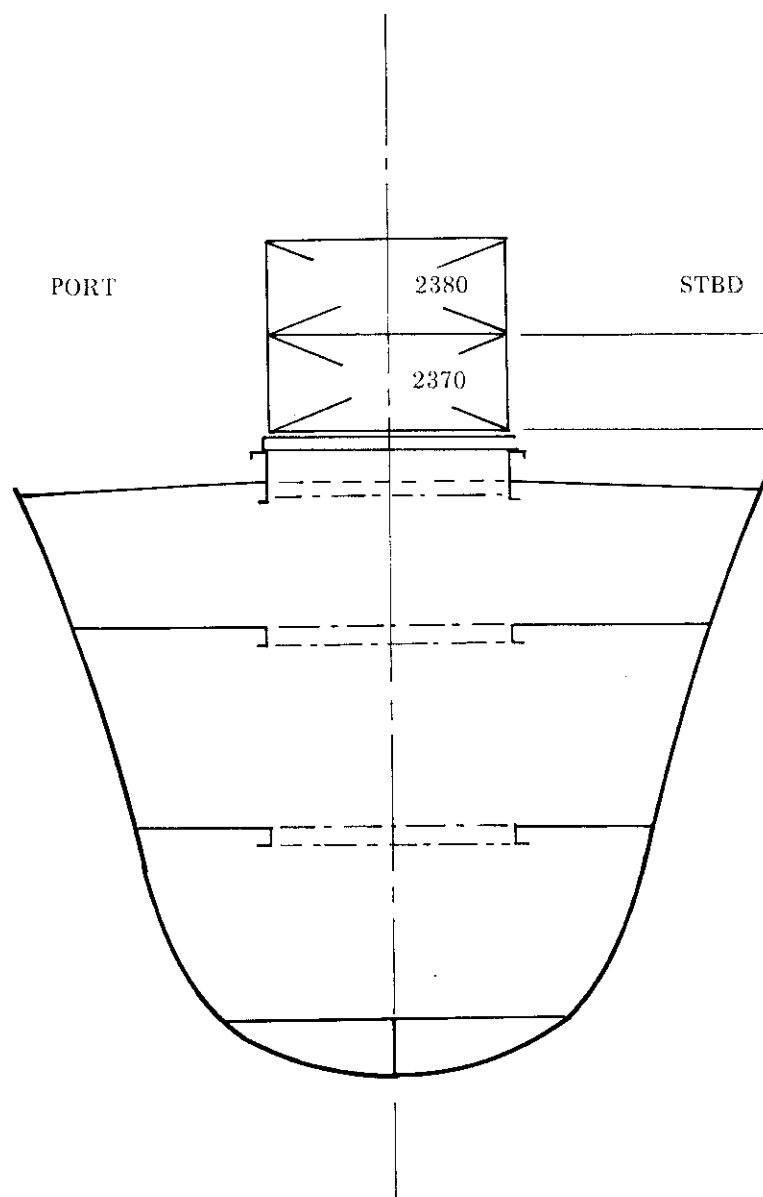
HOLD 2 ROW 2




TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG ∞	MOMENT
	CAPACITY	CARRIED					
8	1			64.8		163.0 F	
8	2			62.0		163.0 F	
7	1			56.8		163.0 F	
7	2			54.0		163.0 F	
TOTAL WEATHER		6				163.0 F	

C4-S-1q Converted
CONTAINER LOADING

HOLD 2 ROW 3



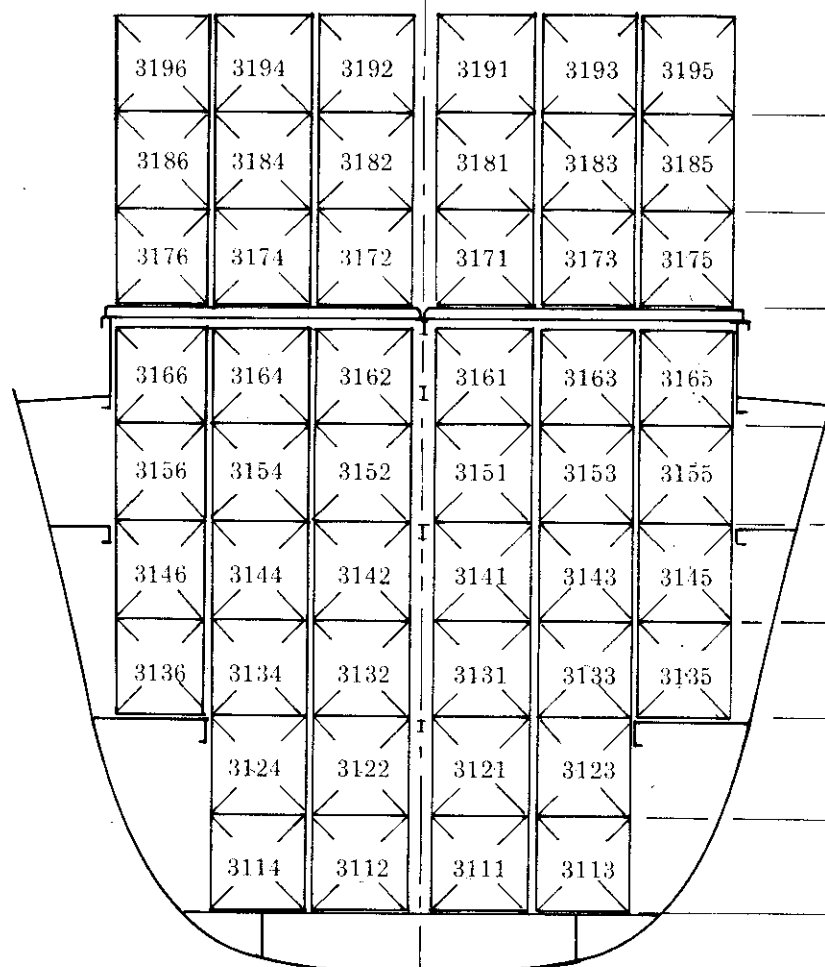
TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L. TONS ACROSS	VCG	MOMENT	LCG 	MOMENT
	CAPACITY	CARRIED					
8	1			64.8		154.5F	
7	1			56.8		154.5F	
TOTAL WEATHER		2				154.5F	

C4-S-1q Converted
CONTAINER LOADING

HOLD 3 ROW 1

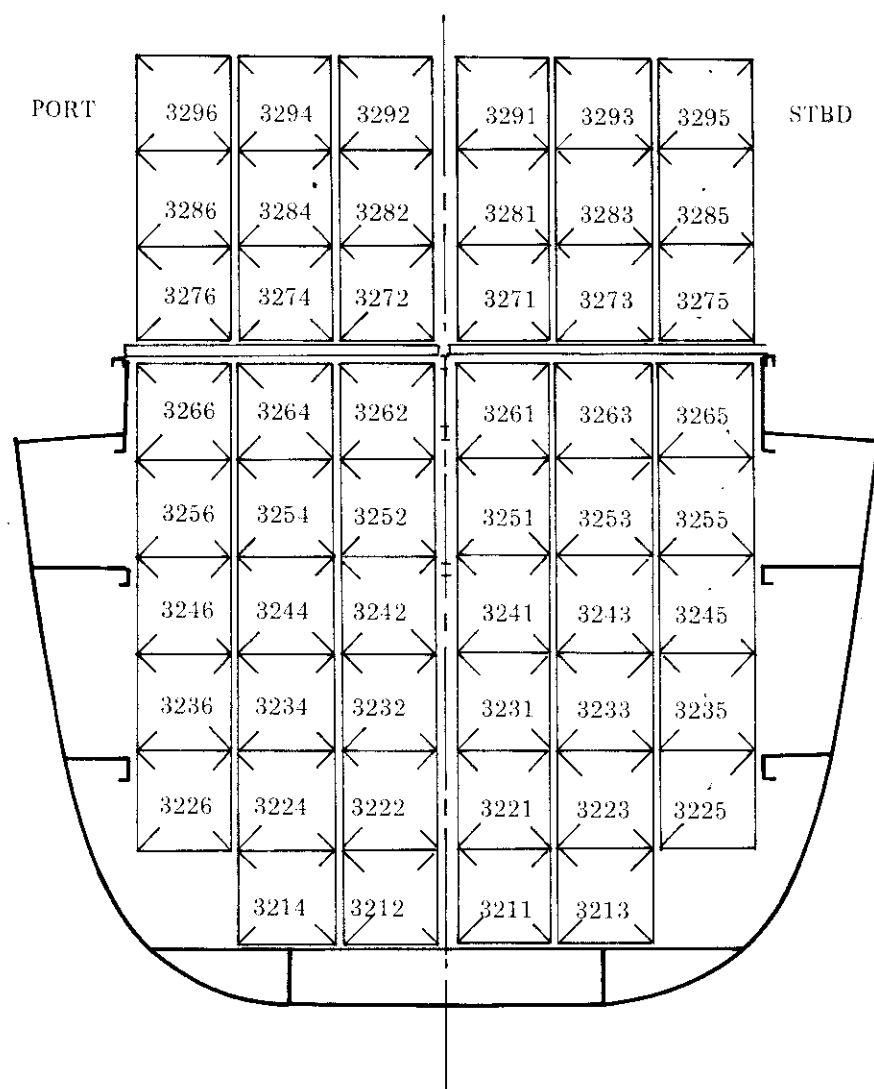
PORT

STBD



TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG \odot	MOMENT
	CAPACITY	CARRIED					
9	6			74.3		122.0 F	
8	6			66.3		122.0 F	
7	6			58.3		122.0 F	
<u>TOTAL WEATHER</u>		18				122.0 F	
6	6			49.08		118.8 F	
5	6			41.08		118.8 F	
4	6			33.08		118.8 F	
3	6			25.08		118.8 F	
2	4			17.08		118.8 F	
1	4			9.08		118.8 F	
<u>TOTAL BELOW</u>		32				118.8 F	

C4-S-1g Converted
CONTAINER LOADING

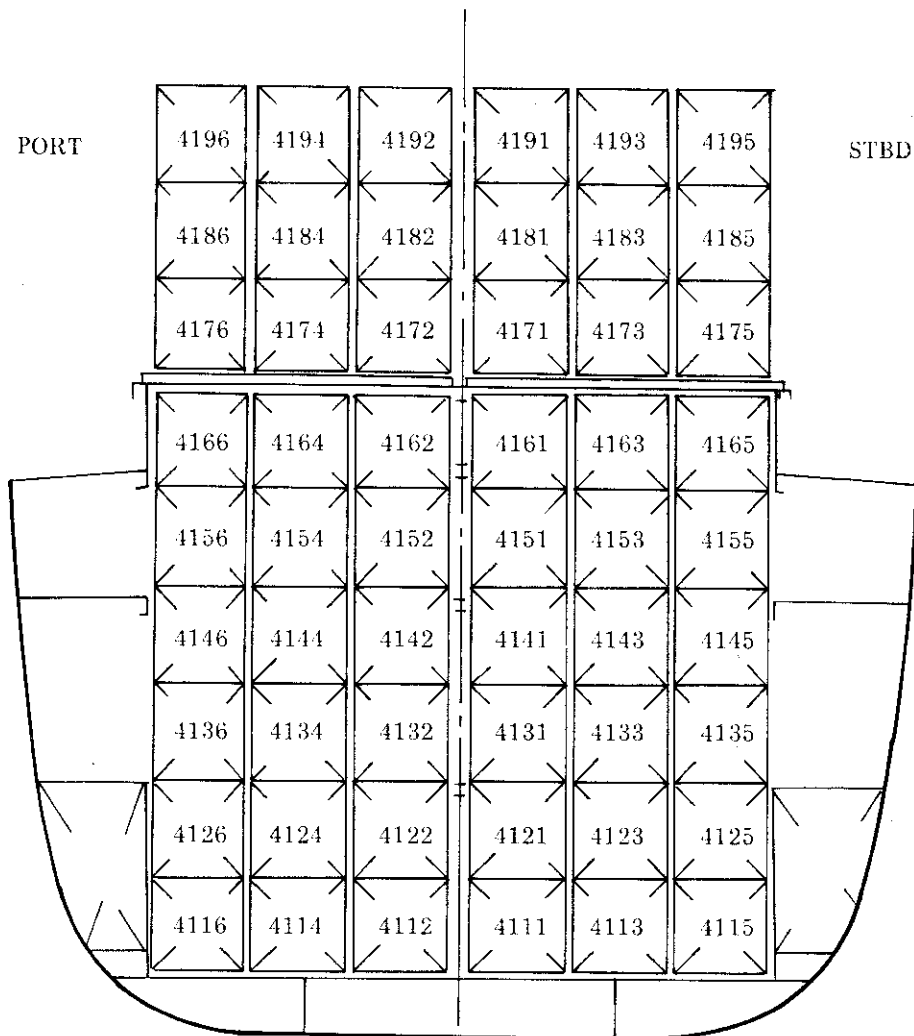


HOLD 3 ROW 2

TIER NO.	NUMBER OF CONTAINERS ACROSS	TOTAL L TONS ACROSS	VCG	MOMENT	LCG	MOMENT
9	6		74.3		99.6 F	
8	6		66.3		99.6 F	
7	6		58.3		99.6 F	
TOTAL WEATHER		18			99.6 F	
6	6		49.08		96.5 F	
5	6		41.08		96.5 F	
4	6		33.08		96.5 F	
3	6		25.08		96.5 F	
2	6		17.08		96.5 F	
1	4		9.08		96.5 F	
TOTAL BELOW		34			96.5 F	

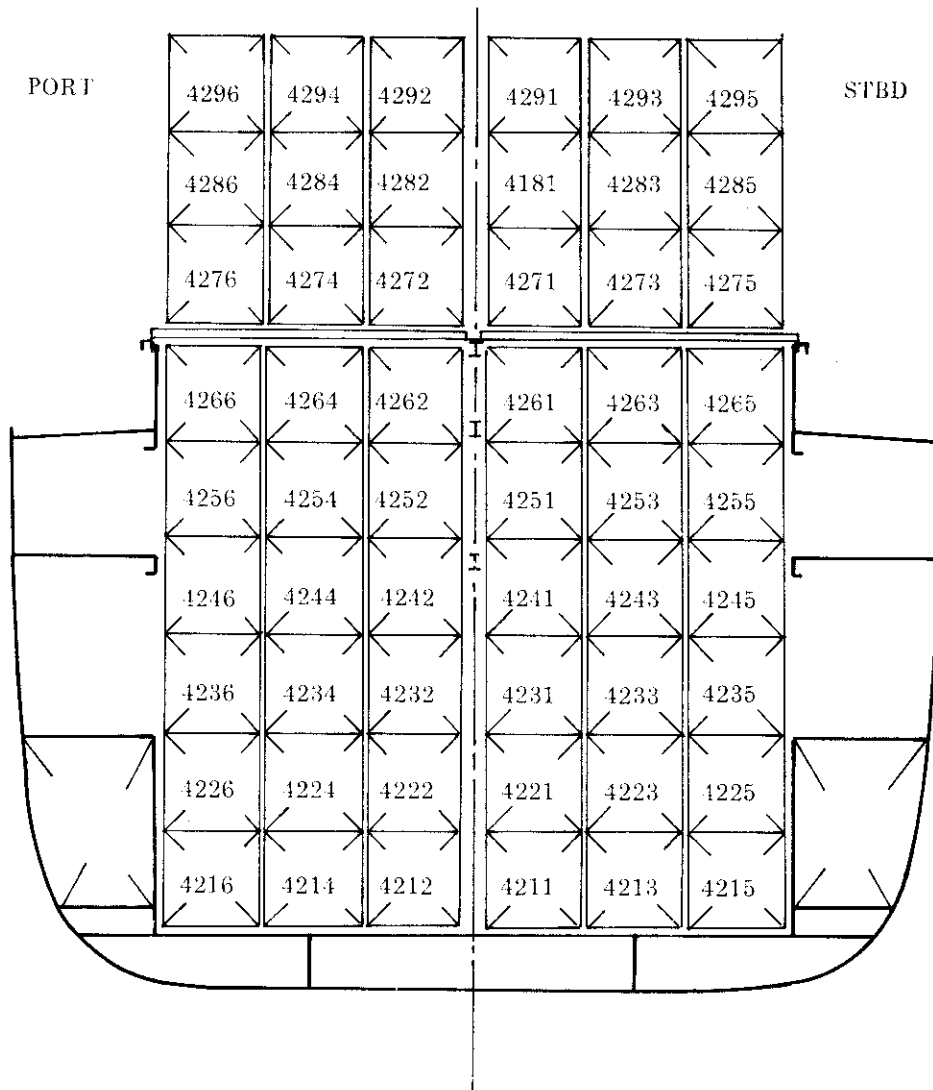
C4-S-1q Converted
CONTAINER LOADING

HOLD 4 ROW 1



TIER NO.	NUMBER OF CONTAINERS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG \odot	MOMENT
	CAPACITY	CARRIED					
9	6			74.3		77.2F	
8	6			66.3		77.2F	
7	6			58.3		77.2F	
TOTAL WEATHER		18				77.2F	
6	6			49.08		73.3F	
5	6			41.08		73.3F	
4	6			33.08		73.3F	
3	6			25.08		73.3F	
2	6			17.08		73.3F	
1	6			9.08		73.3F	
TOTAL BELOW		36				73.3F	

C4-S-1q Converted
CONTAINER LOADING

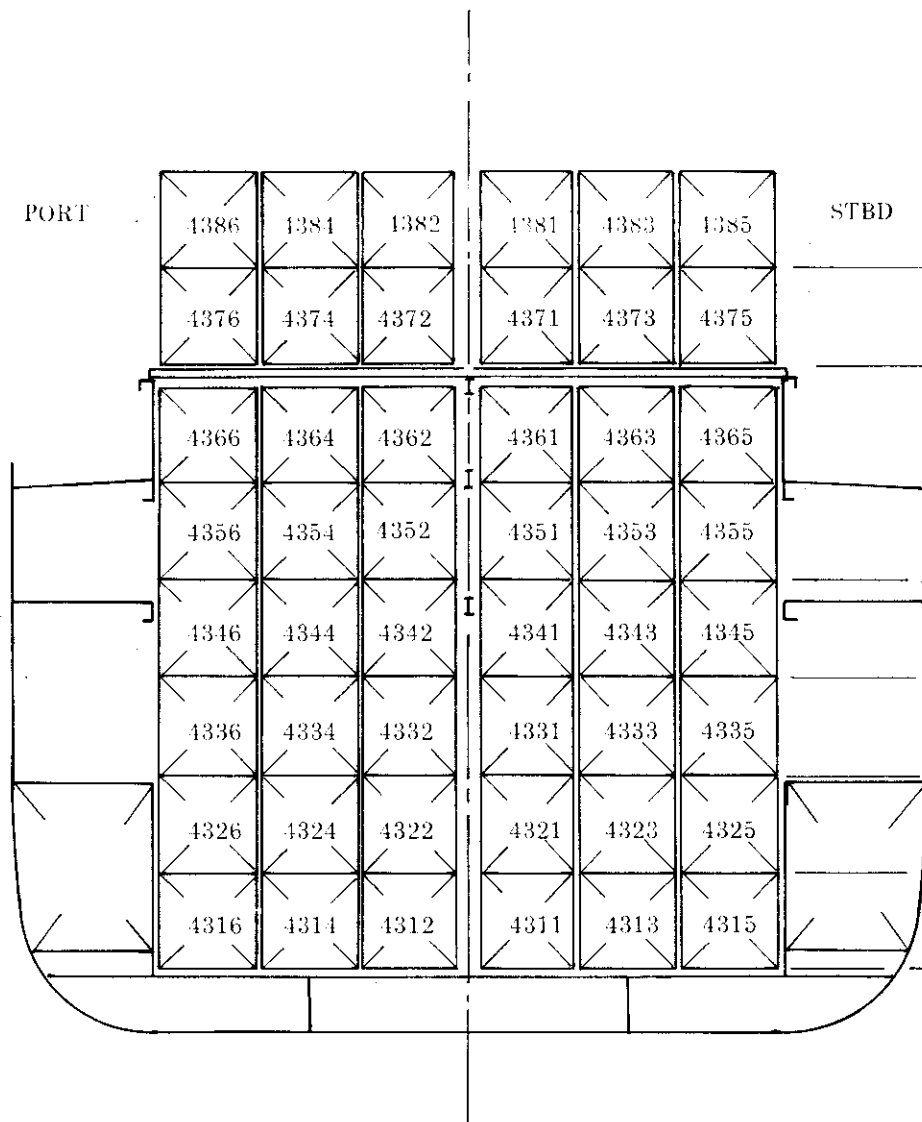


HOLD 4 ROW 2

TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG	MOMENT
	CAPACITY	CARRIED					
9	6			74.3		54.1 F	
8	6			66.3		54.1 F	
7	6			58.3		54.1 F	
TOTAL WEATHER		18				54.1 F	
6	6			49.08		48.8 F	
5	6			41.08		48.8 F	
4	6			33.08		48.8 F	
3	6			25.08		48.8 F	
2	6			17.08		48.8 F	
1	6			9.08		48.8 F	
TOTAL BELOW		36				48.8 F	

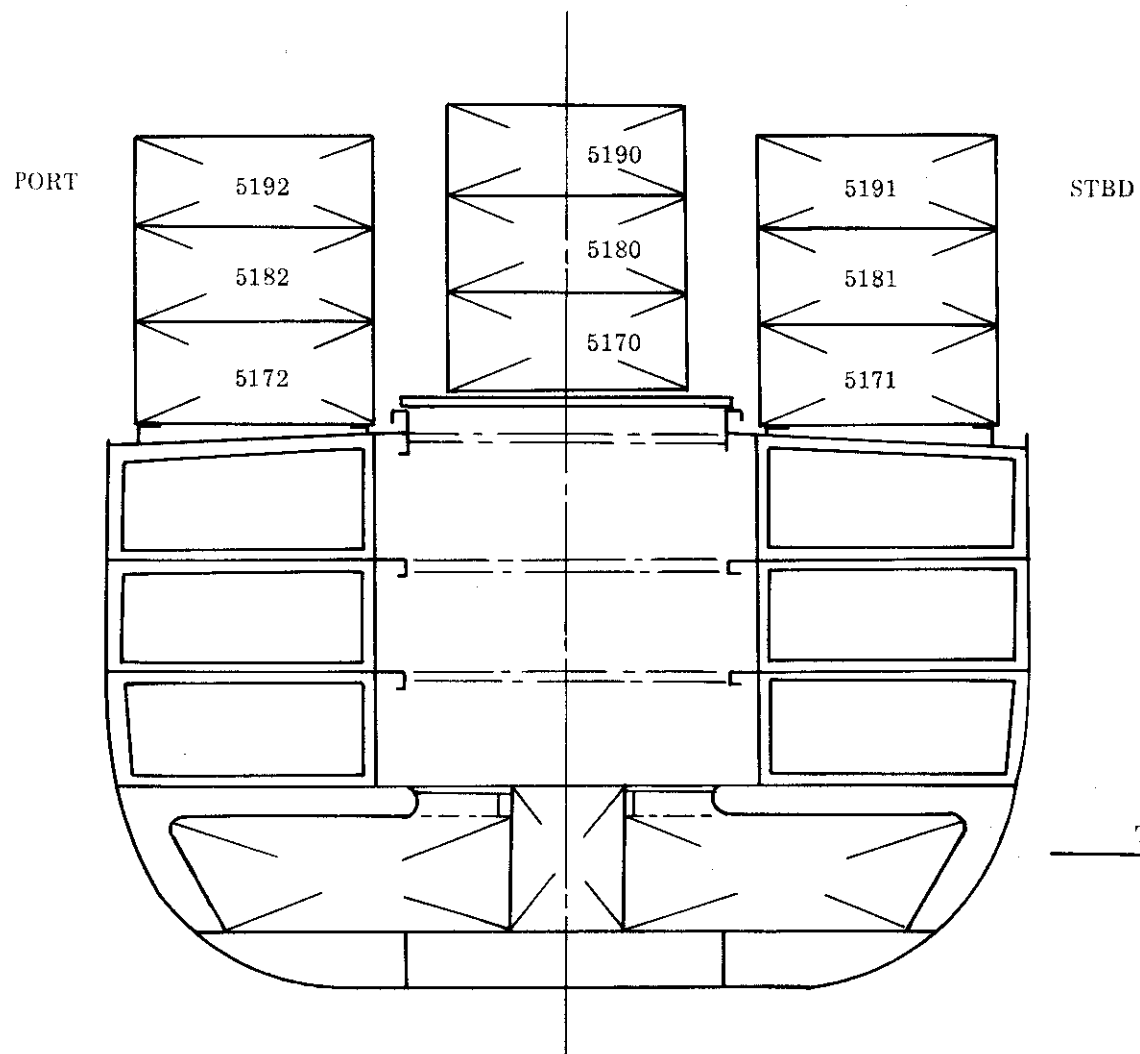
C4-S-1q Converted
CONTAINER LOADING

HOLD 4 ROW 3



TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG ∞	MOMENT
	CAPACITY	CARRIED					
8	6			66.3		25.8 F	
7	6			58.3		25.8 F	
TOTAL WEATHER		12				25.8 F	
6	6			49.08		25.8 F	
5	6			41.08		25.8 F	
4	6			33.08		25.8 F	
3	6			25.08		25.8 F	
2	6			17.08		25.8 F	
1	6			9.08		25.8 F	
TOTAL BELOW		36				25.8 F	

C4-S-1g CONVERTED
CONTAINER LOADING

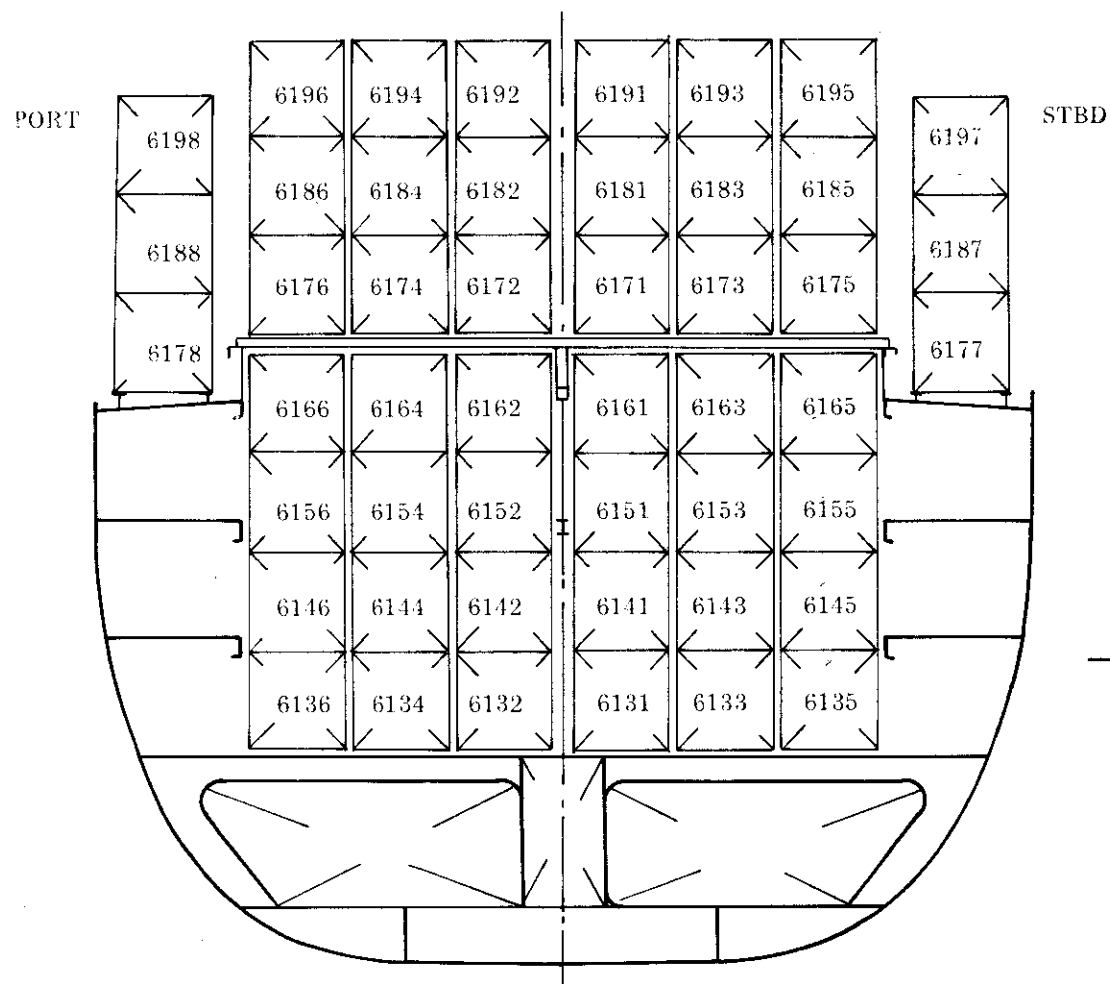


HOLD 5 ROW 1

TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L TONS	VCG	MOMENT	LCG	MOMENT
	CAPACITY	CARRIED					
9	1			69.6		85.5A	
9	2			66.4		84.3A	
8	1			61.6		85.5A	
8	2			58.4		84.3A	
7	1			53.6		85.5A	
7	2			50.4		84.3A	
TOTAL WEATHER		9					

C4-S-1q Converted
CONTAINER LOADING

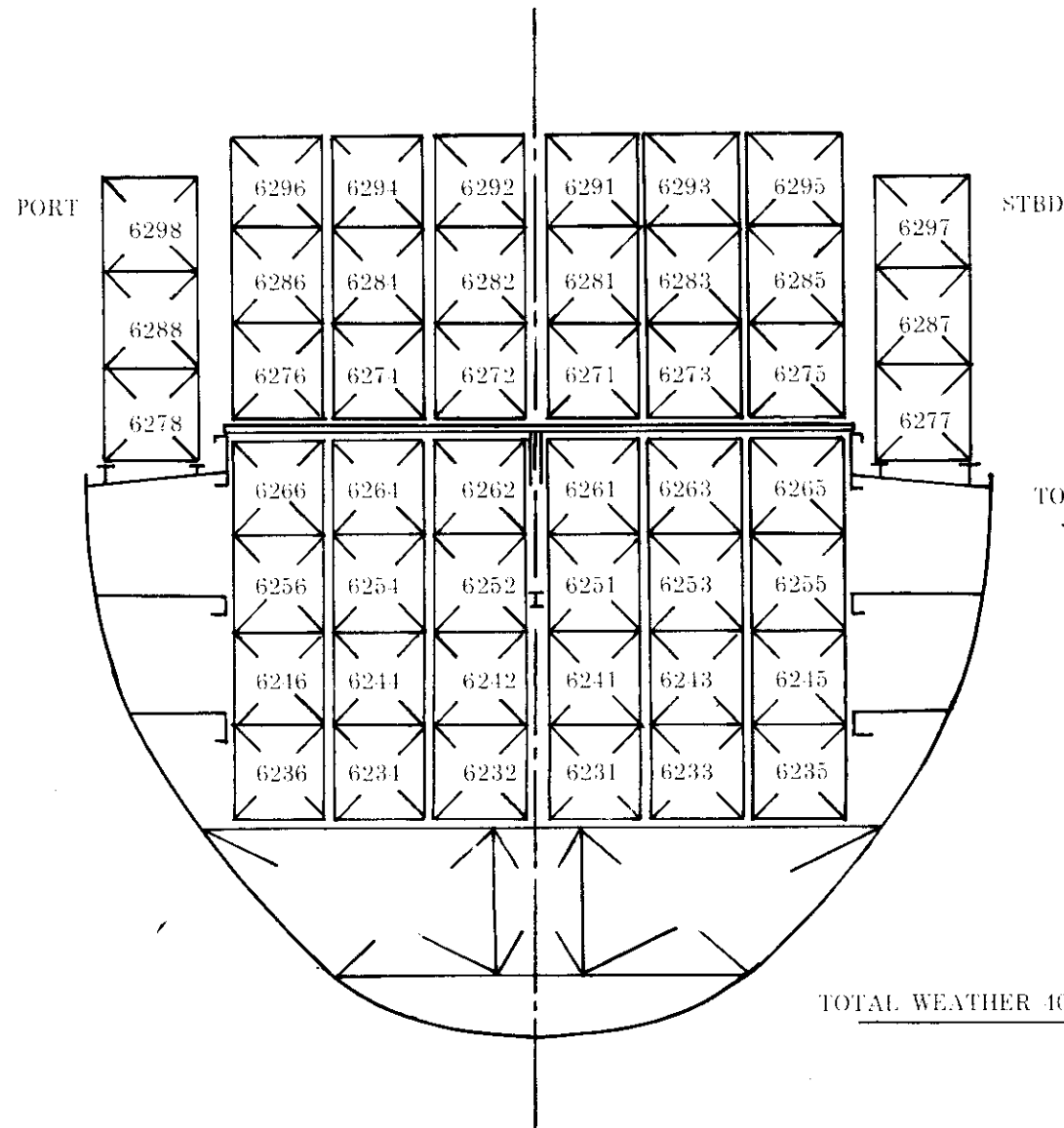
HOLD 6 ROW 1



TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG \odot	MOMENT
	CAPACITY	CARRIED					
9	6			70.3		106.2A	
9	2			66.4		109.3A	
8	6			62.3		106.2A	
8	2			58.4		109.3A	
7	6			54.3		106.2A	
7	2			50.4		109.3A	
TOTAL WEATHER		24					
6	6			45.17		106.2A	
5	6			37.17		106.2A	
4	6			29.17		106.2A	
3	6			21.17		106.2A	
TOTAL BELOW		24					

C4-S-1g Converted
CONTAINER LOADING

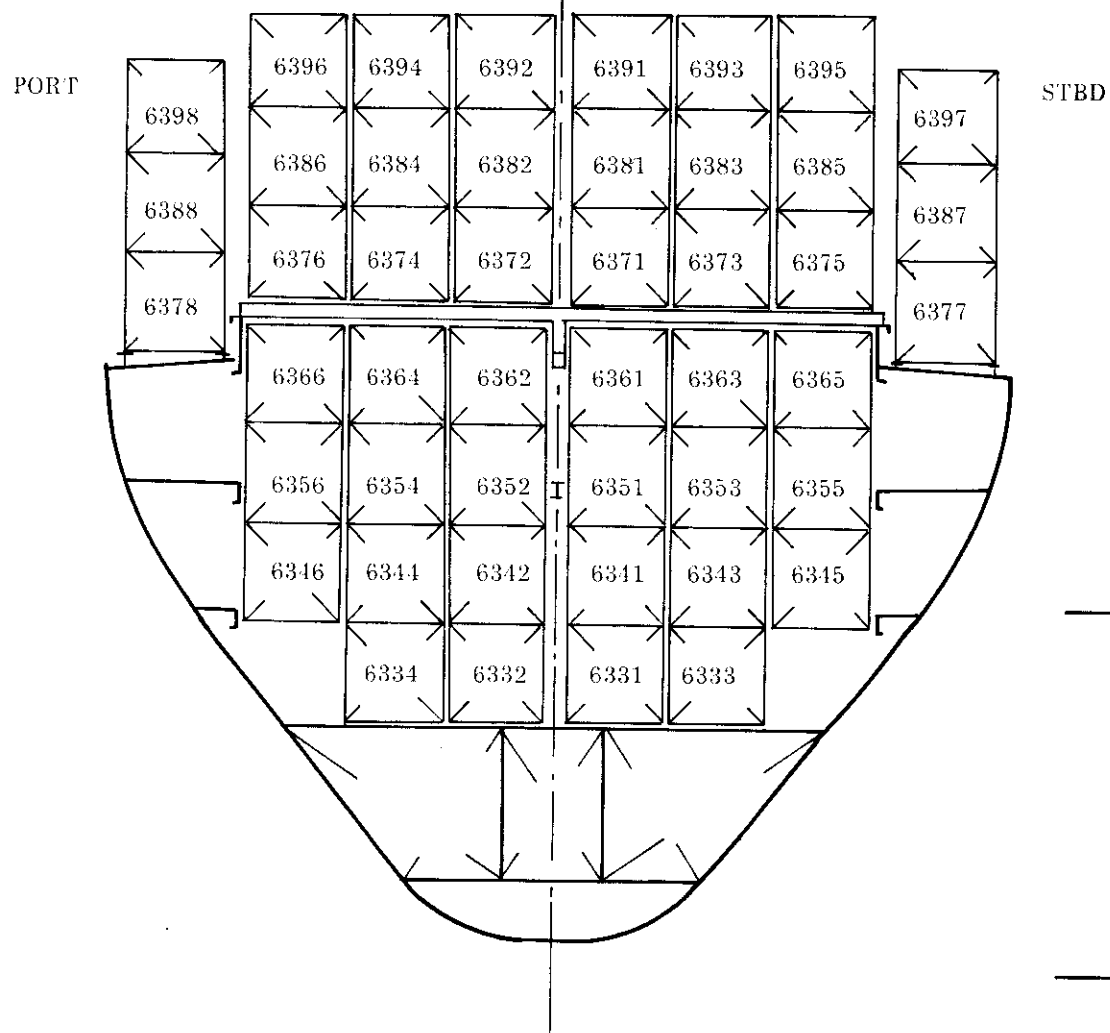
HOLD 6 ROW 2



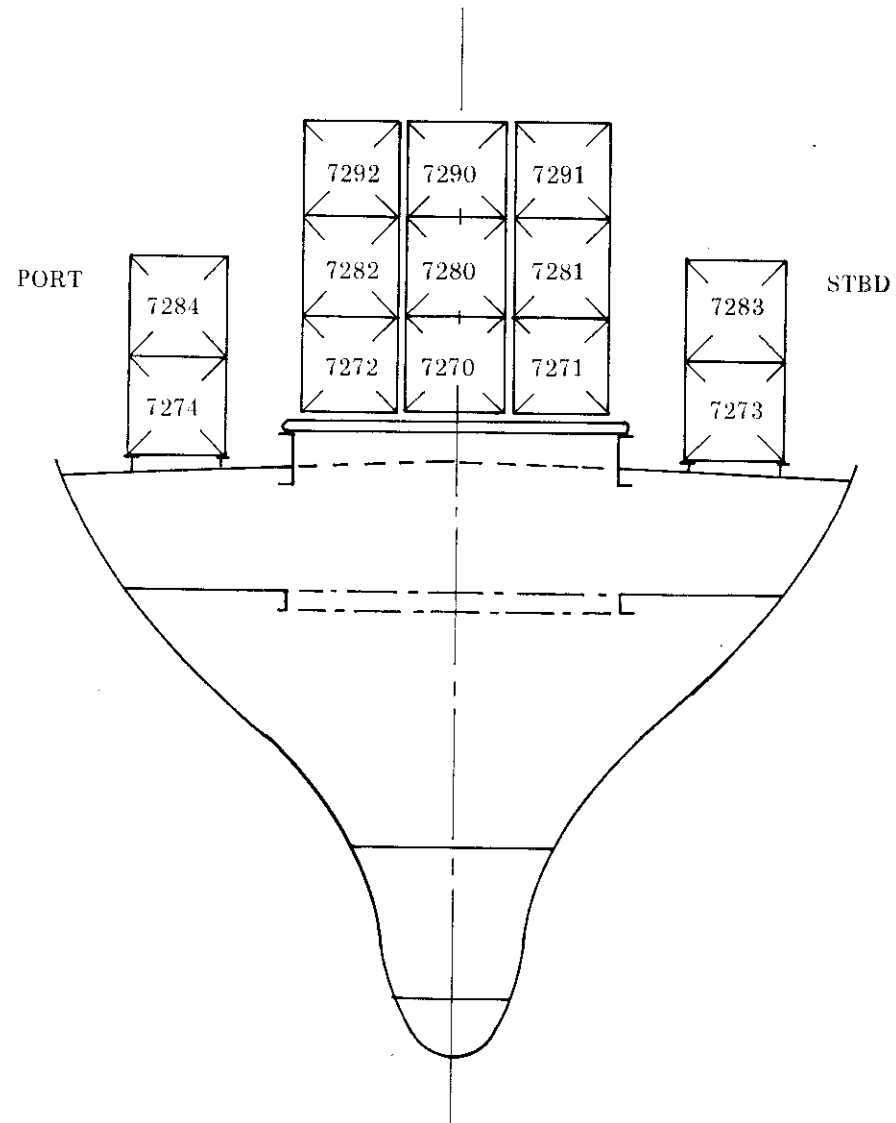
TIER NO.	NUMBER OF CONTAINERS 40' LONG		NUMBER OF CONTAINERS 20' LONG		TOTAL L TONS ACROSS	VCG	MOMENT	LCT	MOMENT
	CAPACITY	CARRIED	CAPACITY	CARRIED					
9			6			70.3		139.1A	
9			2			67.1		131.9A	
8			6			62.3		139.1A	
8			2			59.1		131.9A	
7			6			54.3		139.1A	
7			2			51.1		131.9A	
TOTAL WEATHER 20' CONTAINERS			21						
9	6					71.6		149.1A	
9	2					68.4		144.4A	
8	6					63.1		149.1A	
8	2					59.9		144.4A	
7	6					54.6		149.1A	
7	2					51.4		144.4A	
TOTAL WEATHER 10' CONTAINERS		21							
6			6			45.17		139.1A	
5			6			37.17		139.1A	
4			6			29.17		139.1A	
3			6			21.17		139.1A	
TOTAL BELOW			21					139.1A	

C4-S-1q Converted
CONTAINER LOADING

HOLD 6 ROW 3



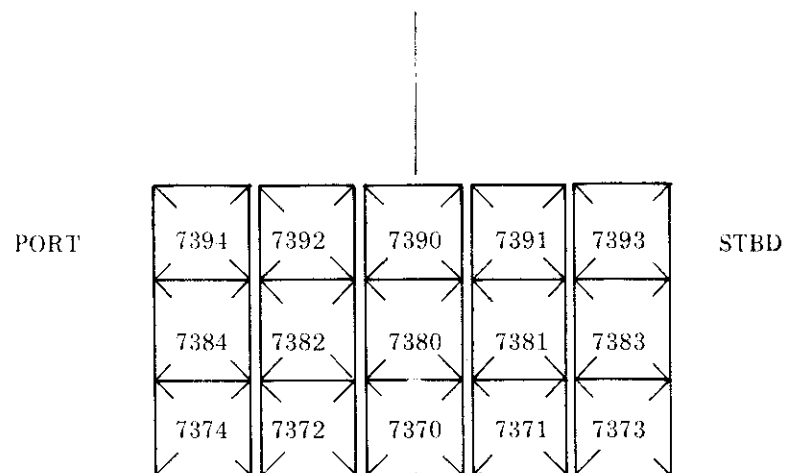
TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG	MOMENT
	CAPACITY	CARRIED					
9	6			70.3		161.5A	
9	2			67.1		154.4A	
8	6			62.3		161.5A	
8	2			59.1		154.4A	
7	6			54.3		161.5A	
7	2			51.1		154.4A	
TOTAL WEATHER		24					
6	6			45.17		161.5A	
5	6			37.17		161.5A	
4	6			29.17		161.5A	
3	4			21.17		161.5A	
TOTAL BELOW		22					



HOLD 7 ROW 2

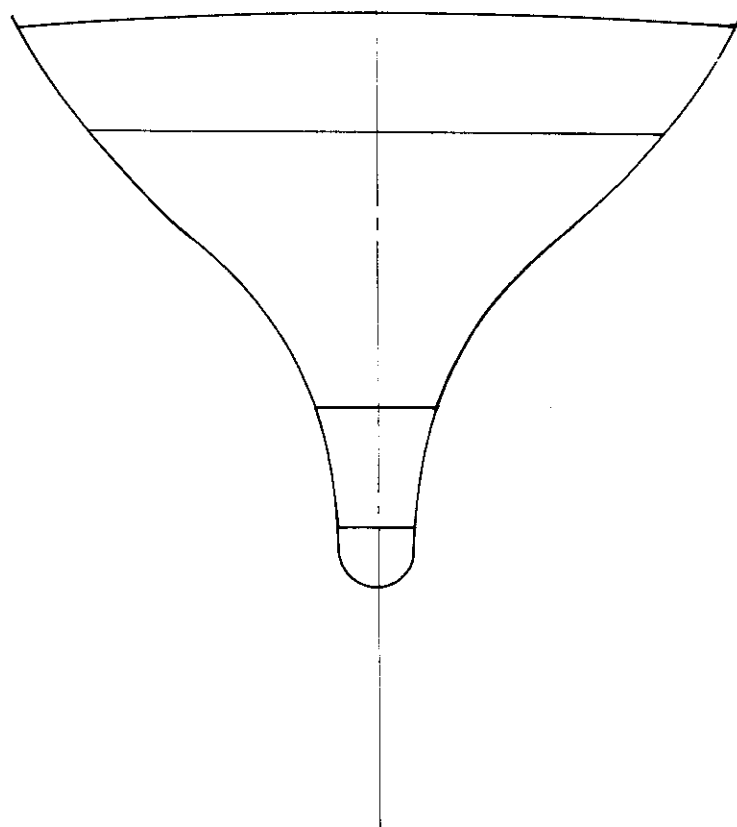
TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG	MOMENT
	CAPACITY	CARRIED					
9	3			70.3		211.5A	
8	3			62.3		211.5A	
8	2			58.8		212.4A	
7	3			54.3		211.5A	
7	2			50.8		212.4A	
TOTAL WEATHER	13						

C4-S-1q Converted
CONTAINER LOADING



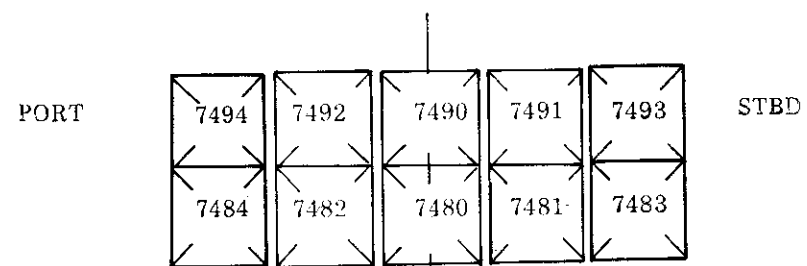
HOLD 7 ROW 3

TIER NO.	NUMBER OF CONTAINERS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG	MOMENT
	40' LONG	20' LONG					
9		5		69.9		233.7A	
8		5		61.9		233.7A	
7		5		53.9		233.7A	
TOTAL WEATHER 20' CONTAINERS		15				233.7A	
9	5			70.7		243.8A	
8	5			62.2		243.8A	
TOTAL WEATHER 40' CONTAINERS		10				243.8A	

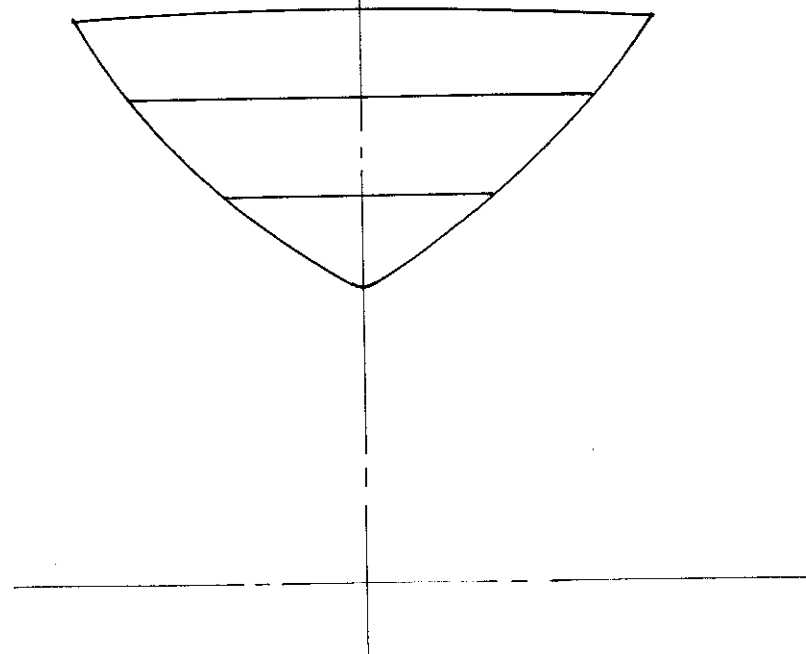


C4-S-1q Converted
CONTAINER LOADING

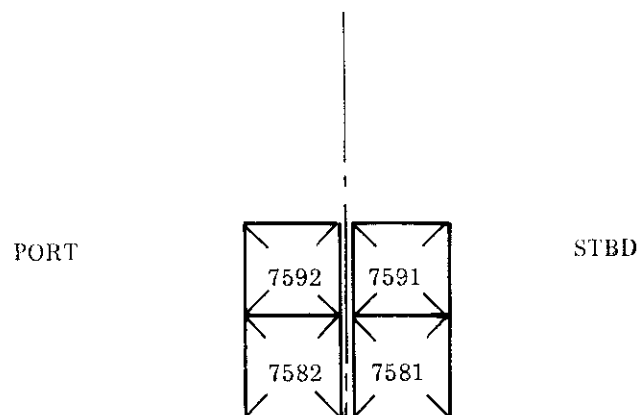
HOLD 7 ROW 4



TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG ∞	MOMENT
	CAPACITY	CARRIED					
9	5			69.9		255.4A	
8	5			61.9		255.4A	
TOTAL WEATHER		10				255.4A	

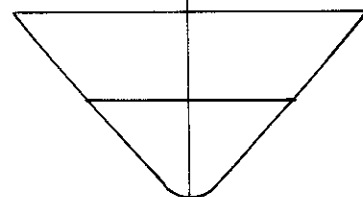


C4-S-1q Converted
CONTAINER LOADING



HOLD 7 ROW 5

TIER NO.	NUMBER OF CONTAINERS ACROSS		TOTAL L TONS ACROSS	VCG	MOMENT	LCG ⊗	MOMENT
	CAPACITY	CARRIED					
9	2			69.9		276.8A	
8	2			61.9		276.8A	
TOTAL WEATHER		4				276.8A	



DRY CARGO								REEFER											
LOCATION				BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT	LOCATION		BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT		
NO. 1 MAIN DECK				13.930	156	56.71		203.44F		BOX 1 2ND DECK		3.359	34	40.49		82.38A			
2ND "				17.660	197	45.49		204.96F		" 2 " "		3.576	36	40.50		82.40A			
3RD "				10.222	114	32.15		201.52F		" 3 26'-6" FLAT		4.729	47	30.80		77.29A			
NO. 2 2ND "				26.185	293	43.72		159.43F		" 4 26'-6" FLAT		4.729	47	30.80		77.29A			
3RD "				27.800	311	29.26		158.57F		" 5 17'-0" FLAT		4.730	47	21.64		77.53A			
TANK TOP				19.587	219	13.12		157.71F		" 6 17'-0" FLAT		4.730	47	21.64		77.53A			
NO. 5 2ND DECK				4.875	70	41.69		85.89A		TOTAL REEFER		25.853	258	30.05	7753	78.75A	20318A		
26'-6" FLAT				3.618	52	31.40		86.04A		TANK		F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	MOMENT	
17'-0" FLAT				4.174	60	21.66		85.97A		NO.1A D.B. C/L		59	48.60		4.52	220	220.15F	10699F	
NO. 7 2ND DECK				32.470	464	42.25		207.92A		1B D.B. C/L		158	82.67		4.56	377	195.13F	16131F	
" (SPEC P.S.)				4.016	57	41.65		179.50A		2 D.B. P		114	58.04		2.79	162	158.21F	9183F	
17'-0" FLAT				41.952	599	28.40		203.01A		2 D.B. S		114	57.89		2.79	162	158.21F	9159F	
TOTAL DRY CARGO				206.489	2592	35.15	91097	7.06A	18300A		3 D.B. C/L		435	127.19		2.51	319	115.38F	14675F
										3 D.B. P		52	28.89		3.19	92	112.05F	3237F	
										3 D.B. S		52	28.87		3.19	92	112.05F	3235F	
										4 D.B. C/L		895	289.01		2.46	711	51.77F	14962F	
										4 D.B. P		419	186.80		2.67	499	46.82F	8746F	
										4 D.B. S		419	186.80		2.67	499	46.82F	8746F	
										5 D.B. C/L		537	170.41		2.45	418	18.11A	3086A	
										5 D.B. P		599	178.88		2.60	465	26.20A	4687A	
										5 D.B. S		599	172.29		2.59	446	25.88A	4159A	
										6 D.B. C/L		332	100.60		2.39	240	77.77A	7824A	
										6 D.B. P		173	63.18		2.69	170	74.82A	4727A	
										6 D.B. S		173	63.18		2.69	170	74.82A	4727A	
										7 D.B. C/L		435	135.01		2.45	331	115.25A	15560A	
										7 D.B. P		130	47.25		2.93	138	108.99A	5150A	
										7 D.B. S		130	47.25		2.93	138	108.99A	5150A	
										8 D.B. P		148	59.79		2.75	164	153.91A	9202A	
										8 D.B. S		148	59.91		2.75	165	153.91A	9221A	
										1 D.T. S		44	99.69		16.58	1653	214.29F	21363F	
										2 D.T. P		44	99.42		16.58	1648	214.28F	21304F	
										3 D.T. C/L		1087	187.74		16.82	3158	191.08F	35873F	
										4 D.T. P		105	117.55		13.02	1531	56.89F	6687F	
										5 D.T. S		105	117.55		13.02	1531	56.89F	6687F	
										6 D.T. P		75	76.92		12.87	990	21.69F	1668F	
										7 D.T. S		75	76.92		12.87	990	21.69F	1668F	
										8 D.T. P		583	192.80		9.78	1886	78.00A	15038A	
										9 D.T. S		439	159.35		9.82	1565	79.66A	12694A	
										10 D.T. P		1543	223.09		9.90	2209	113.40A	25298A	
										11 D.T. S		1543	223.09		9.90	2209	113.40A	25298A	
										12 D.T. P		733	211.92		11.59	2456	154.05A	32646A	
										13 D.T. S		733	211.92		11.59	2456	154.05A	32646A	
										14 D.T. P		171	109.74		9.73	1068	186.76A	20495A	
										15 D.T. S		171	109.74		9.73	1068	186.76A	20495A	
										Fwd Sett P&S		40	201.74		19.06	3845	0.75A	151A	
										Aft Sett P&S		34	173.32		19.07	3305	16.50A	2860A	
										Forepeak					11.65		242.86F		
										Afterpeak					24.90		246.82A		
										TOTAL F.O.		13646	4785.01		8.26	39546	14.08A	67391A	
										TOTAL BALL									
										Pot.W.Fwd.P&S		5776		123.16	21.31	2625	35.75A	4403A	
										Pot.W.Aft P&S				108.59	21.53	2338	52.00A	5647A	
										Dist. Water		59		25.00	39.50	988	4.25F	106F	
										Hot Wells				40.00	6.01	240	36.57F	1463F	
										TOTAL F.W.		5835		296.75	20.85	6191	28.56A	8181A	

CONTAINER CARGO PLUS CONTAINERS

FROM PAGES 11-27

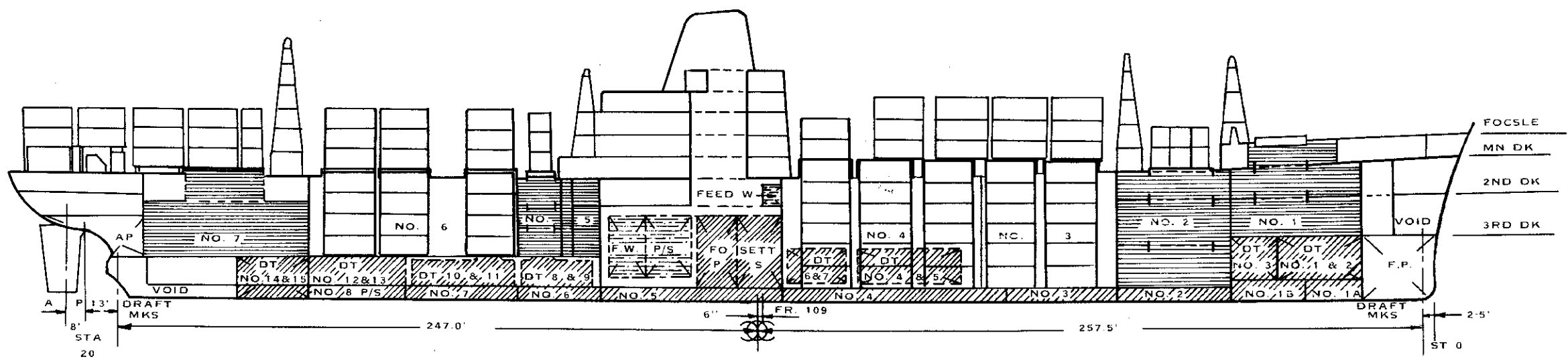
REEFER CARGO HOMOG. STOWAGE @ 100 CUFT TON

FUEL OIL BALLAST





RESERVE F.O.

USEABLE F.O. TANKS

FRESH WATER



ITEM	TONS	KG	VERTICAL MOMENT	⊗ LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	50	42.38	2119	27.00A	1350A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO	2592	35.15	91097	7.06A	18300A	
CONTAINER CARGO & CONTRS	5208	41.87	218053	12.67A	65983A	
REEFER CARGO	258	30.05	7753	78.75A	20318A	
FUEL OIL	4785	8.26	39546	14.08A	67391A	13646
SEA WATER BALLAST						
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	22630	28.74	650437	12.98A	293673A	19481

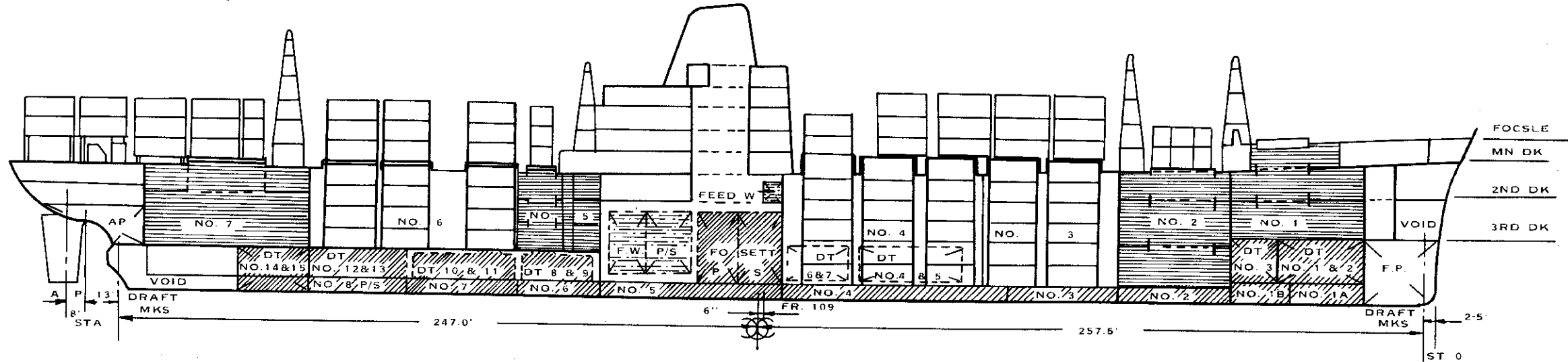
-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER

MEAN S.W. DRAFT (SEE PAGE 5)	31.6'	LCG ⊗	12.98'A
KM (SEE PAGE 5)	31.72'	LCB (SEE PAGE 5)	10.10'A
KG	28.74'	TRIM LEVER FWD AFT	2.88
GM	2.98	MOMENT TO TRIM 1"	2035
CORR FOR FREE SURFACE	0.86	TRIM IN INCHES FWD AFT	32.03
GM AVAILABLE	2.12	LCF ⊗ (PAGE 5)	23.40A
GM REQUIRED (PAGE 8)	1.54	DRAFT FWD 30'-2" DRAFT AFT 32'-9"	

DRY CARGO										REEFER CARGO									
LOCATION				BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT	LOCATION				BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT
NO. 1 MAIN DECK				13930	78	56.71		203.44F		BOX 1 2ND DECK				3.359	17	40.49		82.38A	
2ND "				17660	99	45.49		204.96F		" 2 " "				3.576	18	40.50		82.40A	
3RD "				10222	57	32.15		201.52F		" 3 26'-6" FLAT				4.729	24	30.80		77.29A	
NO. 2 2ND "				26185	147	43.72		159.43F		" 4 26'-6" FLAT				4.729	24	30.80		77.29A	
3RD "				27800	155	29.26		158.57F		" 5 17'-0" FLAT				4.730	24	21.64		77.53A	
TANK TOP				19587	109	13.12		157.71F		" 6 17'-0" FLAT				4.730	24	21.64		77.53A	
NO. 5 2ND DECK				4875	35	41.69		85.89A		TOTAL REEFER				25.893	131	30.05	3937	78.75A	10316A
26'-6" FLAT				3618	26	31.40		86.04A		TANK		F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	MOMENT	
17'-0" FLAT				4174	30	21.66		85.97A		NO.1A	D.B. C/L	59	48.60		4.52	220	220.15F	10669F	
NO. 7 2ND DECK				32470	232	42.25		207.92A		1B	D.B. C L	158	82.67		4.56	377	195.13F	16131F	
" (SPEC P.S)				4016	29	41.65		179.50A		2	D.B. P	114	58.04		2.79	162	158.21F	9183F	
17'-0" FLAT				41952	299	28.40		203.01A		2	D.B. S	114	57.89		2.79	162	158.21F	9159F	
TOTAL DRY CARGO				206489	1296	35.15	45549	7.06A	9150A	3	D.B. C/L	435	127.19		2.51	319	115.38F	14675F	
WEATHER				HOLD	ROW	NO. @20'	NO. @40'			3	D.B. P	52	28.89		3.19	92	112.05F	3237F	
" 2				1	2	8	60.80	171.50F		3	D.B. S	52	28.87		3.19	92	112.05F	3235F	
" 2				2	6	24	58.93	163.00F		4	D.B. C L	895	289.01		2.46	711	51.77F	14962F	
" 2				3	2	8	60.80	154.50F		4	D.B. P	419	186.80		2.67	499	46.82F	8746F	
" 3				1	18	72	66.30	122.00F		4	D.B. S	419	186.80		2.67	499	46.82F	8746F	
" 3				2	18	72	66.30	99.60F		5	D.B. C/L	537	170.41		2.45	413	18.11A	3086A	
" 4				1	18	72	66.30	77.20F		5	D.B. P	599	178.88		2.60	465	26.20A	4687A	
" 4				2	18	72	66.30	54.10F		5	D.B. S	599	172.29		2.59	446	25.88A	4459A	
" 4				3	12	48	62.30	25.80F		6	D.B. C/L	332	100.60		2.39	240	77.77A	7824A	
" 5				1	9	36	59.47	81.70F		6	D.B. P	173	63.18		2.69	170	74.82A	4727A	
" 6				1	24	96	61.33	106.98A		6	D.B. S	173	63.18		2.69	170	74.82A	4727A	
" 6				2	24	96	61.50	137.30A		7	D.B. C L	435	135.01		2.45	331	115.25A	15560A	
" 6				2			62.30	147.93A		7	D.B. P	130	47.25		2.93	138	108.99A	5150A	
" 6				3	24	96	61.50	159.73A		7	D.B. S	130	47.25		2.93	138	108.99A	5150A	
" 7				1	7	28	58.01	193.33A		8	D.B. P	148	59.79		2.75	164	153.91A	9202A	
" 7				1			55.35	202.40A		8	D.B. S	148	59.91		2.75	165	153.91A	9221A	
" 7				2	13	52	60.00	211.81A		1	D.T. S	44	99.69		16.58	1653	214.29F	21363F	
" 7				3	15	60	61.90	233.70A		2	D.T. P	41	99.42		16.58	1648	214.28F	21304F	
" 7				3			66.45	243.80A		3	D.T. C/L	1087	187.74		16.82	3158	191.08F	35873F	
" 7				4	10	40	65.90	255.40A		4	D.T. P	105	117.55		13.02	1531	56.89F	6687F	
" 7				5	4	16	65.90	276.80A		5	D.T. S	105	117.55		13.02	1531	56.89F	6687F	
TOTAL WEATHER 20' CONT				224		896	63.01	56457	60.00A	53761A	6	D.T. P	75	76.92		12.87	990	21.69F	1668F
AVERAGE UNIT WT-4 TONS										7	D.T. S	75	76.92		12.87	990	21.69F	1668F	
TOTAL WEATHER 40' CONT										8	D.T. P	583	192.80		9.78	1886	78.00A	15038A	
AVERAGE UNIT WT-8 TONS										9	D.T. S	439	159.35		9.82	1565	79.66A	12694A	
TOTAL WEATHER				224		896				10	D.T. P	1543	223.09		9.90	2209	113.40A	25298A	
BELOW				3	1	32	224	31.08	118.80F		11	D.T. S	1543	223.09		9.90	2209	113.40A	25298A
" 3				2	34	238	30.26	96.50F		12	D.T. P	733	211.92		11.59	2453	154.05A	32646A	
" 4				1	36	252	29.08	73.30F		13	D.T. S	733	211.92		11.59	2456	154.05A	32646A	
" 4				2	36	252	29.08	48.80F		14	D.T. P	171	109.74		9.73	1068	186.76A	20495A	
" 4				3	36	252	29.08	25.80F		15	D.T. S	171	109.74		9.73	1068	186.76A	20495A	
" 6				1	24	168	33.17	106.20A		Fwd Sett	P&S	40	201.74		19.06	3845	0.75A	151A	
" 6				2	24	168	33.17	139.10A		Aft Sett	P&S	34	173.32		19.07	3305	16.50A	2860A	
" 6				3	22	154	34.26	161.50A		Forepeak					11.65		242.86F		
TOTAL BELOW				244		1708	30.78	52569	12.16F	20769F	Afterpeak				24.90		246.82A		
AVERAGE UNIT WT-7 TONS										TOTAL F.O.	13646	4785.01		8.26	39546	14.08A	67391A		
TOTAL 20' CONTAINER				468		2601	41.87	109027	12.67A	32992A	TOTAL BALL								
TOTAL 40' CONTAINER											Pot.W.Fwd	P&S	5776		123.16	21.31	2625	35.75A	4403A
										Pot.W.Aft	P&S			108.59	21.53	2338	52.00A	5647A	
										Dist. Water		59		25.00	39.50	988	4.25F	106F	
										Hot Wells				40.00	6.01	240	36.57F	1463F	
										TOTAL F.W.	5835		296.75	20.85	6191	28.56A	8481A		

FROM PAGES 11-27

AMERICAN PRESIDENT LINES CARGO VESSEL U.S.M.A. C4-S-1q CONVERTED
 VOYAGE NO. HALF CARGO, FULL FUEL OIL, FULL STORES



ITEM	TONS	KG	VERTICAL MOMENT	LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	50	42.38	2119	27.00A	1350A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO	1296	35.15	45549	7.06A	9150A	
CONTAINER CARGO & CONTRS	2604	41.87	109027	12.67A	32992A	
REEFER CARGO	131	30.05	3937	78.75A	10316A	
FUEL OIL	4785	8.26	39546	14.08A	67391A	13646
SEA WATER BALLAST						
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	18603	26.45	492047	12.98A	24153A	19481

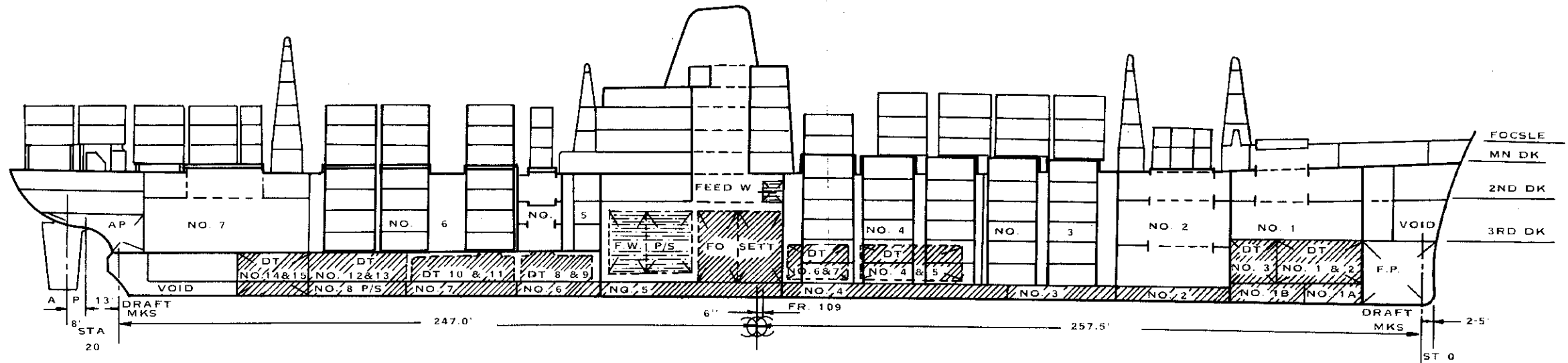
- DRY OR REEFER CARGO
- FUEL OIL
- BALLAST
- FRESH WATER

MEAN S.W. DRAFT (SEE PAGE 5)	26.75'	LCG	12.98A
KM (SEE PAGE 5)	31.09'	LCB (SEE PAGE 5)	7.73A
KG	26.45'	TRIM LEVER FWD , AFT	5.25
GM	4.64	MOMENT TO TRIM 1"	1760
CORR FOR FREE SURFACE	1.05	TRIM IN INCHES FWD , AFT	55.49
GM AVAILABLE	3.59	LCF (PAGE 5)	18.2A
GM REQUIRED (PAGE 8)	1.56	DRAFT FWD 24'-3 1/2" DRAFT AFT 28'-9 1/2"	





DRY CARGO								REEFER CARGO													
LOCATION				BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT	LOCATION				BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT		
NO. 1 MAIN DECK				13,930		56.71		203.44F		BOX 1 2ND DECK				3,359		40.49		82.38A			
2ND "				17,660		45.49		204.96F		" 2 " "				3,576		40.50		82.40A			
3RD "				10,222		32.15		201.52F		" 3 26'-6" FLAT				4,729		30.80		77.29A			
NO. 2 2ND "				26,185		43.72		159.43F		" 4 26'-6" FLAT				4,729		30.80		77.29A			
3RD "				27,800		29.26		158.57F		" 5 17'-0" FLAT				4,730		21.64		77.53A			
TANK TOP				19,587		13.12		157.71F		" 6 17'-0" FLAT				4,730		21.64		77.53A			
NO. 5 2ND DECK				4,875		41.69		85.89A		TOTAL REEFER											
26'-6" FLAT				3,618		31.40		86.04A		TANK		F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	MOMENT			
17'-0" FLAT				4,174		21.66		85.97A		NO.1A D.B. C/L	59	48.60		4.52	220	220.15F	10699F				
NO. 7 2ND DECK				32,470		42.25		207.92A		1B D.B. C/L	158	82.67		4.56	377	195.13F	16131F				
" (SPEC P/S)				4,016		41.65		179.50A		2 D.B. P	114	58.04		2.79	162	158.21F	9183F				
17'-0" FLAT				41,952		28.40		203.01A		2 D.B. S	114	57.89		2.79	162	158.21F	9159F				
TOTAL DRY CARGO										3 D.B. C/L	435	127.19		2.51	319	115.38F	14675F				
CONTAINER CARGO PLUS CONTAINERS				WEATHER	HOLD	ROW	NO. @20'	NO. @40'			3 D.B. P	52	28.89		3.19	92	112.05F	3237F			
				"	2	1						3 D.B. S	52	28.87		3.19	92	112.05F	3235F		
CONTAINER CARGO PLUS CONTAINERS				"	2	2					4 D.B. C/L	895	289.01		2.46	711	51.77F	14962F			
				"	2	3						4 D.B. P	419	186.80		2.67	499	46.82F	8746F		
CONTAINER CARGO PLUS CONTAINERS				"	3	1					4 D.B. S	419	186.80		2.67	499	46.82F	8746F			
				"	3	2						5 D.B. C/L	537	170.41		2.45	418	18.11A	3086A		
CONTAINER CARGO PLUS CONTAINERS				"	4	1					5 D.B. P	599	178.88		2.60	465	26.20A	4687A			
				"	4	2						5 D.B. S	599	172.29		2.59	446	25.88A	4459A		
CONTAINER CARGO PLUS CONTAINERS				"	4	3					6 D.B. C/L	332	100.60		2.39	240	77.77A	7824A			
				"	5	1						6 D.B. P	173	63.18		2.69	170	74.82A	4727A		
CONTAINER CARGO PLUS CONTAINERS				"	6	1					6 D.B. S	173	63.18		2.69	170	74.82A	4727A			
				"	6	2						7 D.B. C/L	435	135.01		2.45	331	115.25A	15560A		
CONTAINER CARGO PLUS CONTAINERS				"	6	2					7 D.B. P	130	47.25		2.93	138	108.99A	5150A			
				"	6	3						7 D.B. S	130	47.25		2.93	138	108.99A	5150A		
CONTAINER CARGO PLUS CONTAINERS				"	7	1					8 D.B. P	148	59.79		2.75	164	153.91A	9202A			
				"	7	2						8 D.B. S	148	59.91		2.75	165	153.91A	9221A		
CONTAINER CARGO PLUS CONTAINERS				"	7	3					1 D.T. S	44	99.69		16.58	1653	214.29F	21363F			
				"	7	3						2 D.T. P	44	99.42		16.58	1648	214.28F	21304F		
CONTAINER CARGO PLUS CONTAINERS				"	7	4					3 D.T. C/L	1087	187.74		16.82	3158	191.08F	35873F			
				"	7	5						4 D.T. P	105	117.55		13.02	1531	56.89F	6687F		
CONTAINER CARGO PLUS CONTAINERS				"	7	4					5 D.T. S	105	117.55		13.02	1531	56.89F	6687F			
				"	7	5						6 D.T. P	75	76.92		12.87	990	21.69F	1668F		
CONTAINER CARGO PLUS CONTAINERS				"	7	5					7 D.T. S	75	76.92		12.87	990	21.69F	1668F			
				"	7	5						8 D.T. P	583	192.80		9.78	1886	78.00A	15038A		
CONTAINER CARGO PLUS CONTAINERS				"	7	5					9 D.T. S	439	159.35		9.82	1565	79.66A	12694A			
				"	7	5						10 D.T. P	1543	223.09		9.90	2209	113.40A	25298A		
CONTAINER CARGO PLUS CONTAINERS				"	7	5					11 D.T. S	1543	223.09		9.90	2209	113.40A	25298A			
				"	7	5						12 D.T. P	733	211.92		11.59	2456	154.05A	32646A		
CONTAINER CARGO PLUS CONTAINERS				"	7	5					13 D.T. S	733	211.92		11.59	2456	154.05A	32646A			
				"	7	5						14 D.T. P	171	109.74		9.73	1068	186.76A	20495A		
CONTAINER CARGO PLUS CONTAINERS				"	7	5					15 D.T. S	171	109.74		9.73	1068	186.76A	20495A			
				"	7	5						Fwd Sett P&S	40	201.74		19.06	3845	0.75A	151A		
CONTAINER CARGO PLUS CONTAINERS				"	7	5					Aft Sett P&S	34	173.32		19.07	3305	16.50A	2860A			
				"	7	5						Forepeak				11.65		242.86F			
CONTAINER CARGO PLUS CONTAINERS				"	7	5					Afterpeak				24.90		246.82A				
				"	7	5						TOTAL F.O.	13646	4785.01		8.26	39546	14.08A	67391A		
CONTAINER CARGO PLUS CONTAINERS				"	7	5					TOTAL BALL										
				"	7	5						Pot.W.Fwd.P&S	5776		123.16	21.31	2625	35.75A	4403A		
CONTAINER CARGO PLUS CONTAINERS				"	7	5					Pot.W.Aft. P&S			108.59	21.53	2338	52.00A	5647A			
				"	7	5						Djst. Water	59		25.00	39.50	988	4.25F	106F		
CONTAINER CARGO PLUS CONTAINERS				"	7	5					Hot Wells			40.00	6.01	240	36.57F	1463F			
				"	7	5						TOTAL F.W.	5835		296.75	20.85	6191	28.56A	8481A		

VOYAGE NO.

NO CARGO, FULL FUEL OIL, FULL STORES



ITEM	TONS	KG	VERTICAL MOMENT	LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	50	42.38	2119	27.00A	1350A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO						
CONTAINER CARGO & CONTRS						
REEFER CARGO						
FUEL OIL	4785	8.26	39546	14.08A	67391A	13646
SEA WATER BALLAST						
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	14572	22.89	333534	12.98A	189072A	19481

-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER

MEAN S.W. DRAFT (SEE PAGE 5)	21.70'	LCG	12.98A
KM (SEE PAGE 5)	31.42	LCB (SEE PAGE 5)	5.56A
KG	22.89	TRIM LEVER FWD AFT	7.42
GM	8.53	MOMENT TO TRIM 1"	1532
CORR FOR FREE SURFACE	1.34	TRIM IN INCHES FWD AFT	70.58
GM AVAILABLE	6.19	LCF (PAGE 5)	12.80A
GM REQUIRED (PAGE 8)	2.95	DRAFT FWD 18'-7 1/4" DRAFT AFT 24'-4"	

DRY CARGO HOMOGENEOUS STOWAGE		LOCATION						REEFER CARGO HOMOGENEOUS STOWAGE @ 100 CUFT TON	LOCATION							
		NO.	1	2	3	4	5		6	7	8	9	10	11	12	
		NO. 1 MAIN DECK	13.930	156	56.71		203.44F		BOX 1 2ND DECK	3.359	34	40.49		82.38A		
		2ND "	17.660	197	45.49		201.96F		" 2 "	3.576	36	40.50		82.40A		
		3RD "	10.222	114	32.15		201.52F		" 3 26'-6" FLAT	4.729	47	30.80		77.29A		
		NO. 2 2ND "	26.185	293	43.72		159.43F		" 4 26'-6" FLAT	4.729	47	30.80		77.29A		
		3RD "	27.800	311	29.26		158.57F		" 5 17'-0" FLAT	4.730	47	21.64		77.53A		
		TANK TOP	19.587	219	13.12		157.51F		" 6 17'-0" FLAT	4.730	47	21.64		77.53A		
		NO. 5 2ND DECK	4.875	70	41.69		85.89A		TOTAL REEFER	25.853	258	30.05	7.753	78.75A	20.318A	
		26'-6" FLAT	3.618	52	31.40		86.04A		TANK	F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	MOMENT
		17'-0" FLAT	4.174	60	21.66		85.97A		NO.1A D.B. C L	59	48.60		4.52	220	220.15F	10699F
		NO. 7 2ND DECK	32.470	464	42.25		207.92A		1B D.B. C L	158	82.67		4.56	377	195.13F	16131F
		(SPEC P.S)	4.016	57	41.65		179.50A		2 D.B. P	114	58.04		2.79	162	158.21F	9183F
		17'-0" FLAT	41.952	599	28.40		203.01A		2 D.B. S	114	57.89		2.79	162	158.21F	9159F
		TOTAL DRY CARGO	206,489	2592	35.15	91097	7.06A	18300A	3 D.B. C L	435	127.19		2.51	319	115.38F	14675F
									3 D.B. P	52	28.89		3.19	92	112.05F	3237F
									3 D.B. S	52	28.87		3.19	92	112.05F	3235F
									4 D.B. C L	895	289.01		2.46	711	51.77F	14962F
									4 D.B. P	419	186.80		2.67	499	46.82F	8746F
									4 D.B. S	419	186.80		2.67	499	46.82F	8746F
									5 D.B. C L	537	170.41		2.45	418	18.11A	3086A
									5 D.B. P	599	178.88		2.60	465	26.20A	4687A
									5 D.B. S	599	172.29		2.59	446	25.88A	4459A
									6 D.B. C L	332	100.60		2.39	240	77.77A	7824A
									6 D.B. P	173	63.18		2.69	170	74.82A	4727A
									6 D.B. S	173	63.18		2.69	170	74.82A	4727A
									7 D.B. C L	435	135.01		2.45	331	115.25A	15560A
									7 D.B. P	130	47.25		2.93	138	108.99A	5150A
									7 D.B. S	130	47.25		2.93	138	108.99A	5150A
									8 D.B. P	148	59.79		2.75	164	153.91A	9202A
									8 D.B. S	148	59.91		2.75	165	153.91A	9221A
									1 D.T. S	44	99.69		16.58		214.29F	
									2 D.T. P	44	99.42		16.58		214.28F	
									3 D.T. C L	1087	187.74		16.82		191.08F	
									4 D.T. P			127.59	13.02	1661	56.89F	7259F
									5 D.T. S			127.59	13.02	1661	56.89F	7259F
									6 D.T. P				12.87		21.69F	
									7 D.T. S				12.87		21.69F	
									8 D.T. P	1826		209.27	9.78	2017	78.00A	16323A
									9 D.T. S	1198		172.96	9.82	1698	79.66A	13778A
									10 D.T. P				9.90		113.40A	
									11 D.T. S				9.90		113.40A	
									12 D.T. P	733	211.92		11.59		154.05A	
									13 D.T. S	733	211.92		11.59		154.05A	
									14 D.T. P	171	109.74		9.73		186.76A	
									15 D.T. S	171	109.74		9.73		186.76A	
									Fwd Sett P&S	40	93.00		19.06		0.75A	
									Aft Sett P&S	34	173.32		19.07		16.50A	
									Forepeak				11.65		242.86F	
									Afterpeak				24.90		246.82A	
									TOTAL F.O.	9178	3489.00	637A1	7.04	24563	1.63A	5692A
									TOTAL BALL	3024		673.41	11.09	7067	24.45A	15583A
									Pot.W.Fwd.P&S	5776		123.16	21.31	2625	35.75A	4403A
									Pot.W.Aft P&S			108.59	21.53	2338	52.00A	5647A
									Dist. Water	39		25.00	39.50	988	4.25F	106F
									Hot Wells			40.0	6.01	240	36.57F	1463F
									TOTAL F.W.	5835		296.75	20.85	6191	28.56A	8481A

CONTAINER
CARGO
PLUS
CONTAINERS

FROM
PAGES
11-27

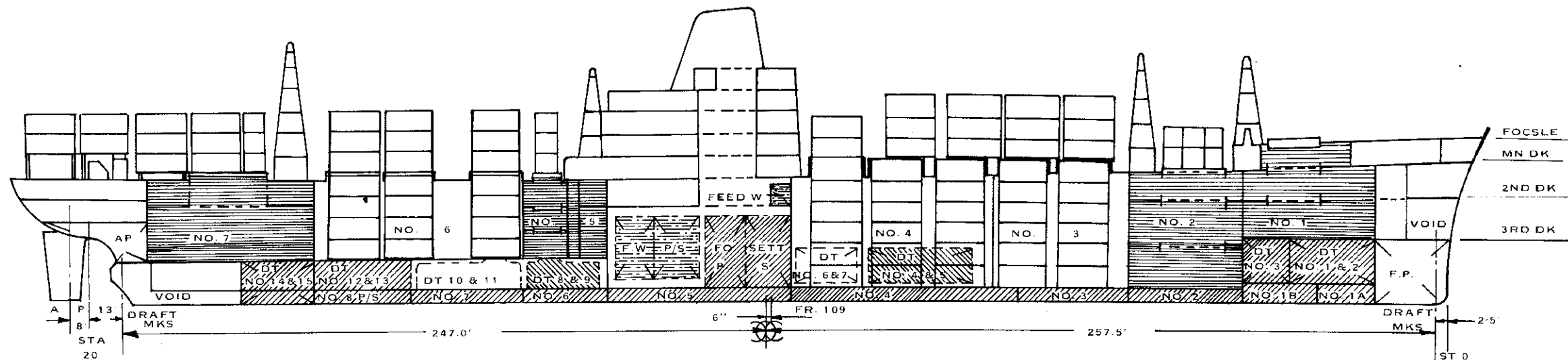
FUEL
OIL
BALLAST

RESERVE
F.O.

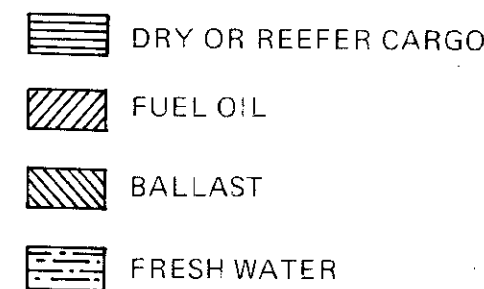
USEABLE
F.O.
TANKS

FRESH
WATER

AMERICAN PRESIDENT LINES CARGO VESSEL U.S.M.A. C4-S-14 CONVERTED
 VOYAGE NO. FULL CARGO, HALF USEABLE FUEL OIL, HALF STORES

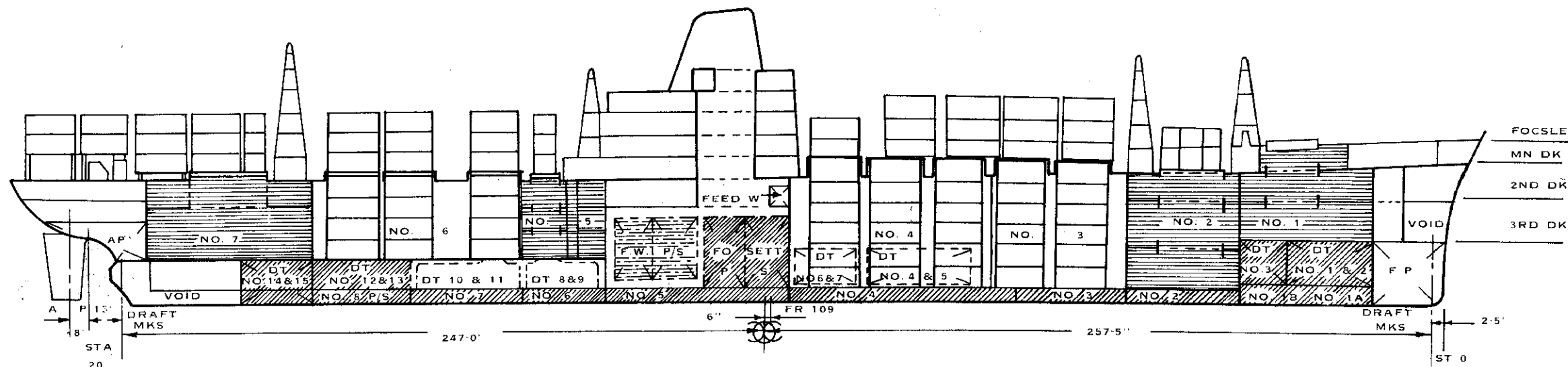


ITEM	TONS	KG	VERTICAL MOMENT	LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	30	43.80	1314	30.27A	908A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO	2592	35.15	91097	7.06A	18300A	
CONTAINER CARGO & CONTRS	5208	41.87	218053	12.67A	65983A	
REEFER CARGO	258	30.05	7753	78.75A	20318A	
FUEL OIL	3489	7.04	24563	1.63A	5692A	9178
SEA WATER BALLAST	637	11.09	7067	24.45A	15583A	3024
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	21951	29.23	641716	11.26	247115	18037







MEAN S.W. DRAFT (SEE PAGE 5) 30.76'
 KM (SEE PAGE 5) 31.57
 KG 29.23
 GM 2.34
 CORR FOR FREE SURFACE 0.82
 GM AVAILABLE 1.52
 GM REQUIRED (PAGE 8) 1.50

LCG - \odot 11.26A
 LCB (SEE PAGE 5) 9.70A
 TRIM LEVER ~~FWD~~, AFT 1.56
 MOMENT TO TRIM 1" 1986
 TRIM IN INCHES ~~FWD~~, AFT 17.24
 LCF \odot (PAGE 5) 22.60A
 DRAFT FWD 29'-11 1/4" DRAFT AFT 31'-4 1/2"



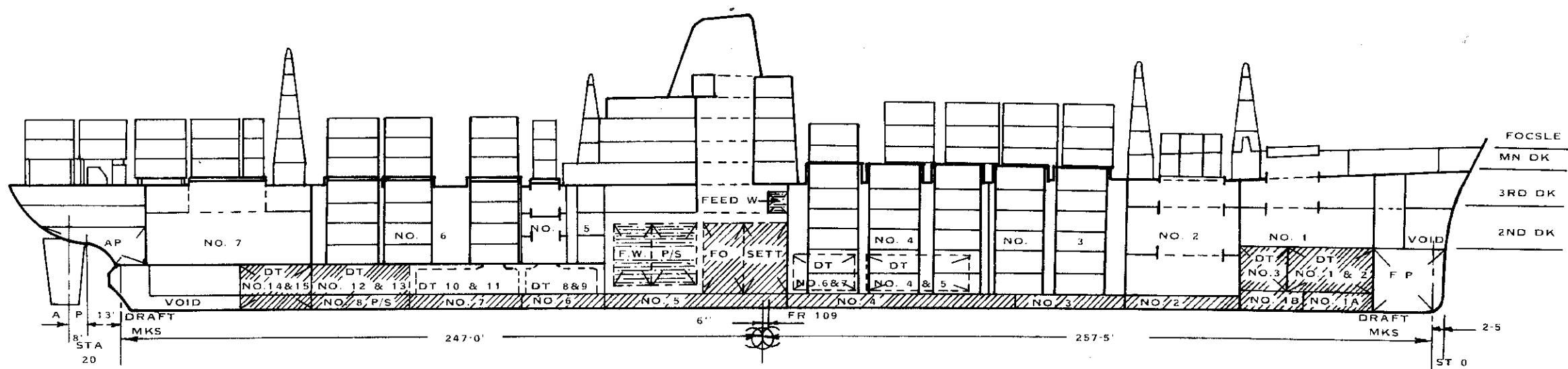
ITEM	TONS	KG	VERTICAL MOMENT	⊙ LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	30	43.80	1314	30.27A	908A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO	1296	35.15	45549	7.06A	9150A	
CONTAINER CARGO & CONT'RS	2604	41.87	109027	12.67A	32992A	
REEFER CARGO	131	30.05	3937	78.75A	10316A	
FUEL OIL	3489	7.04	24563	1.63A	5692A	9178
SEA WATER BALLAST						
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	17287	27.55	476259	10.38A	179389A	15013

-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER





MEAN S.W. DRAFT (SEE PAGE 5)	<u>25.15'</u>	LCG ⊙	<u>10.38A</u>
KM (SEE PAGE 5)	<u>31.05'</u>	LCB (SEE PAGE 5)	<u>6.94A</u>
KG	<u>27.55</u>	TRIM LEVER AFT	<u>3.44</u>
GM	<u>3.50</u>	MOMENT TO TRIM 1"	<u>1670</u>
CORR FOR FREE SURFACE	<u>0.87</u>	TRIM IN INCHES AFT	<u>35.61</u>
GM AVAILABLE	<u>2.63</u>	LCF ⊙ (PAGE 5)	<u>16.20A</u>
GM REQUIRED (PAGE 8)	<u>1.57</u>	DRAFT FWD <u>23'-6"</u>	DRAFT AFT <u>26'-5 1/2"</u>



LOCATION		BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT	REEFER CARGO	LOCATION	BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT	
NO. 1 MAIN DECK		13.930		56.71		203.44F		REEFER CARGO	BOX 1 2ND DECK	3.359		40.49		82.38A		
2ND "		17.660		45.49		204.96F			" 2 "	3.576		40.50		82.40A		
3RD "		10.222		32.15		201.52F			" 3 26'-6" FLAT	4.729		30.80		77.29A		
NO. 2 2ND "		26.185		43.72		159.43F			" 4 26'-6" FLAT	4.729		30.80		77.29A		
3RD "		27.800		29.26		158.57F			" 5 17'-0" FLAT	4.730		21.64		77.53A		
TANK TOP		19.587		13.12		157.71F			" 6 17'-0" FLAT	4.730		21.64		77.53A		
NO. 5 2ND DECK		4.875		41.69		85.89A			TOTAL REEFER							
26'-6" FLAT		3.618		31.40		86.04A			TANK	F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	
17'-0" FLAT		4.174		21.66		85.97A			NO.1A D.B. C/L	59	48.60		4.52	220	220.15F	10699F
NO. 7 2ND DECK		32.470		42.25		207.92A			1B D.B. C/L	158	82.67		4.56	377	195.13F	16131F
" (SPEC P.S)		4.016		41.65		179.50A		2 D.B. P	114	58.04		2.79	162	158.21F	9183F	
17'-0" FLAT		41.952		28.40		203.01A		2 D.B. S	114	57.89		2.79	162	158.21F	9159F	
TOTAL DRY CARGO								3 D.B. C/L	435	127.19		2.51	319	115.38F	14675F	
WEATHER		HOLD	ROW	NO. @20'	NO. @40'			3 D.B. P	52	28.89		3.19	92	112.05F	3237F	
CONTAINER CARGO PLUS CONTAINERS								3 D.B. S	52	28.87		3.19	92	112.05F	3235F	
" 2		1						4 D.B. C/L	895	289.01		2.46	711	51.77F	14962F	
" 2		2						4 D.B. P	419	186.80		2.67	499	46.82F	8746F	
" 2		3						4 D.B. S	419	186.80		2.67	499	46.82F	8746F	
" 3		1						5 D.B. C/L	537	170.41		2.45	418	18.11A	3086A	
" 3		2						5 D.B. P	599	178.88		2.60	465	26.20A	4687A	
" 4		1						5 D.B. S	599	172.29		2.59	446	25.88A	4459A	
" 4		2						6 D.B. C/L	332	100.60		2.39	240	77.77A	7824A	
" 4		3						6 D.B. P	173	63.18		2.69	170	74.82A	4727A	
" 5		1						6 D.B. S	173	63.18		2.69	170	74.82A	4727A	
" 6		1						7 D.B. C/L	435	135.01		2.45	331	115.25A	15560A	
" 6		2						7 D.B. P	130	47.25		2.93	138	108.99A	5150A	
" 6		2						7 D.B. S	130	47.25		2.93	138	108.99A	5150A	
" 6		3						8 D.B. P	148	59.79		2.75	164	153.91A	9202A	
" 7		1						8 D.B. S	148	59.91		2.75	165	153.91A	9221A	
" 7		1						1 D.T. S	44	99.69		16.58	1653	214.29F	21363F	
" 7		2						2 D.T. P	44	99.42		16.58	1648	214.28F	21304F	
" 7		3						3 D.T. C/L	1087	187.74		16.82	3158	191.08F	35873F	
" 7		3						4 D.T. P				13.02		56.89F		
" 7		4						5 D.T. S				13.02		56.89F		
" 7		5						6 D.T. P				12.87		21.69F		
" 7		5						7 D.T. S				12.87		21.69F		
" 7		5						8 D.T. P				9.78		78.00A		
" 7		5						9 D.T. S				9.82		79.66A		
" 7		5						10 D.T. P				9.90		113.40A		
" 7		5						11 D.T. S				9.90		113.40A		
" 7		5						12 D.T. P	733	211.92		11.59	2456	154.05A		
" 7		5						13 D.T. S	733	211.92		11.59	2456	154.05A		
" 7		5						14 D.T. P	171	109.74		9.73	1068	186.76A		
" 7		5						15 D.T. S	171	109.74		9.73	1068	186.76A		
" 7		5						Fwd Sett P&S	40	93.00		19.06	1773	0.75A		
" 7		5						Aft Sett P&S	34	173.32		19.07	3305	16.50A		
" 7		5						Forepeak				11.65		242.86F		
" 7		5						Afterpeak				24.90		246.82A		
" 7		5						TOTAL F.O.	9178	3489.00		7.04	24563	1.63A	5692A	
" 7		5						TOTAL BALL								
" 7		5						Pot.W.Fwd P&S	5776		123.16	21.31	2625	35.75A	4403A	
" 7		5						Pot.W.Aft P&S			108.59	21.53	2338	52.00A	5647A	
" 7		5						Dist. Water	59		25.00	39.50	988	4.25F	106F	
" 7		5						Hot Wells			40.00	6.01	240	36.57F	1463F	
" 7		5						TOTAL F.W.	5835		296.75	20.88	6191	28.56A	8481A	
TOTAL WEATHER 20' CONTS								USEABLE F.O. TANKS								
AVERAGE UNIT WT.								FRESH WATER								
TOTAL WEATHER 40' CONTS																
AVERAGE UNIT WT.																
TOTAL WEATHER																
BELOW		3	1													
" 3		2														
" 4		1														
" 4		2														
" 4		3														
" 6		1														
" 6		2														
" 6		3														
TOTAL BELOW																
AVERAGE UNIT WT.																
TOTAL 20' CONTAINER																
TOTAL 40' CONTAINER																

FROM PAGES 11-27

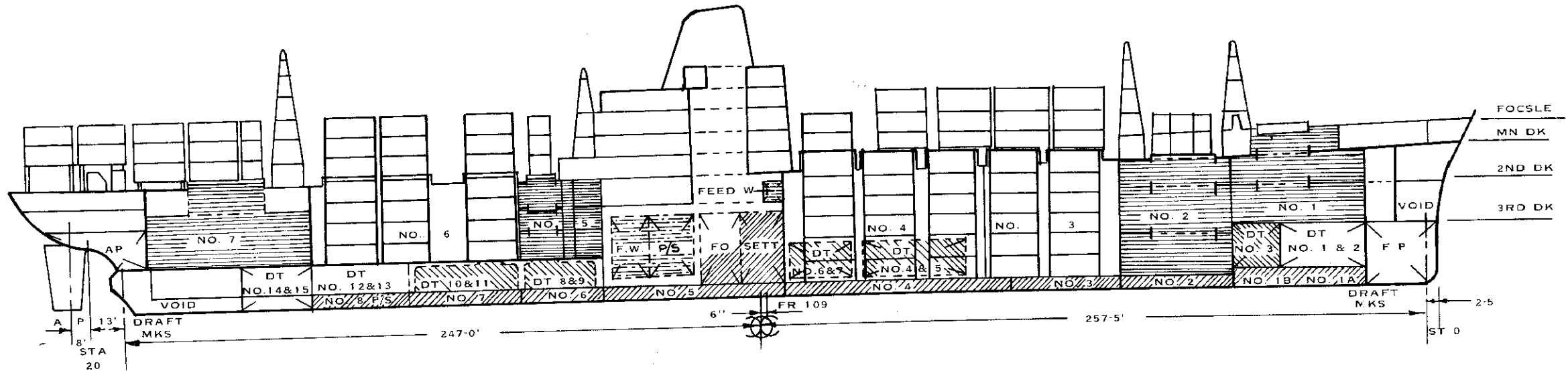


ITEM	TONS	KG	VERTICAL MOMENT	⊗ LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	30	43.80	1314	30.27A	908A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO						
CONTAINER CARGO & CONTRS						
REEFER CARGO						
FUEL OIL	3489	7.04	24563	1.63A	5692A	9178
SEA WATER BALLAST						
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	13256	23.97	317746	9.58A	126931A	15013





-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER



MEAN S.W. DRAFT (SEE PAGE 5)	<u>20.0'</u>	LCG 	<u>9.58A</u>
KM (SEE PAGE 5)	<u>31.91</u>	LCB (SEE PAGE 5)	<u>4.92A</u>
KG	<u>23.97</u>	TRIM LEVER FWD AFT	<u>4.66</u>
GM	<u>7.94</u>	MOMENT TO TRIM 1"	<u>1480</u>
CORR FOR FREE SURFACE	<u>1.13</u>	TRIM IN INCHES FWD AFT	<u>41.74</u>
GM AVAILABLE	<u>6.81</u>	LCF  (PAGE 5)	<u>11.10A</u>
GM REQUIRED (PAGE 8)	<u>3.57</u>	DRAFT FWD <u>18'-1 1/4"</u> DRAFT AFT <u>21'-6 3/4"</u>	

DRY CARGO HOMOG. STOWAGE								REEFER CARGO HOMOG. STOWAGE @ 100 CUFT/TON								FUEL OIL BALLAST								RESERVE F.O.								USEABLE F.O. TANKS								FRESH WATER							
LOCATION				BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT	LOCATION				BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT	TANK		F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	MOMENT	TANK		F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	MOMENT										
NO. 1 MAIN DECK				13,930	156	56.71		203.44F		BOX 1 2ND DECK				3,359	34	40.49		82.38A		NO.1A D.B. C/L		59	48.60		4.52	220	220.15F	10699F	NO.1B D.B. C/L		158	82.67		4.56	377	195.13F	16131F										
2ND "				17,660	197	45.49		204.96F		" 2 " "				3,576	36	40.50		82.40A		2 D.B. P		114	58.04		2.79	162	158.21F	9183F	2 D.B. S		114	57.89		2.79	162	158.21F	9159F										
3RD "				10,222	114	32.15		201.52F		" 3 26'-6" FLAT				4,729	47	30.80		77.29A		3 D.B. C/L		435	127.19		2.51	319	115.38F	14675F	3 D.B. P		52	28.89		3.19	92	112.05F	3237F										
NO. 2 2ND "				26,185	293	43.72		159.43F		" 4 26'-6" FLAT				4,729	47	30.80		77.29A		3 D.B. S		52	28.87		3.19	92	112.05F	3235F	4 D.B. C/L		895	289.01		2.46	711	51.77F	14962F										
3RD "				27,800	311	29.26		158.57F		" 5 17'-0" FLAT				4,730	47	21.64		77.53A		4 D.B. P		419	186.80		2.67	499	46.82F	8746F	4 D.B. S		419	186.80		2.67	499	46.82F	8746F										
TANK TOP				19,587	219	13.12		157.71F		" 6 17'-0" FLAT				4,730	47	21.64		77.53A		5 D.B. C/L		537	170.41		2.45	418	18.11A	3086A	5 D.B. P		599	178.88		2.60	465	26.20A	4687A										
NO. 5 2ND DECK				4,875	70	41.69		85.89A		TOTAL REEFER				28,853	258	30.05	7,753	78.75A	20 318A	5 D.B. S		599	172.29		2.59	446	25.88A	4459A	5 D.B. C/L		332	100.60		2.39	240	77.77A	7824A										
26'-6" FLAT				3,618	52	31.40		86.04A		FUEL OIL BALLAST		TANK		F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	MOMENT	6 D.B. P		173	63.18		2.69	170	74.82A	4727A	6 D.B. S		173	63.18		2.69	170	74.82A	4727A									
17'-0" FLAT				4,174	60	21.66		85.97A		RESERVE F.O.		6 D.B. C/L		435	135.01		2.45	331	115.25A	15560A	6 D.B. P		130	47.25		2.93	138	108.99A	5150A	7 D.B. C/L		435	135.01		2.45	331	115.25A	15560A									
NO. 7 2ND DECK				32,470	464	42.25		207.92A		USEABLE F.O. TANKS		7 D.B. P		130	47.25		2.93	138	108.99A	5150A	7 D.B. S		130	47.25		2.93	138	108.99A	5150A	7 D.B. P		148	59.79		2.75	164	153.91A	9202A									
" (SPEC P.S)				4,016	57	41.65		179.50A		FRESH WATER		8 D.B. S		148	59.91		2.75	165	153.91A	9221A	1 D.T. S					16.58		214.29F	8 D.B. C/L		435	135.01		2.45	331	115.25A	15560A										
17'-0" FLAT				41,952	599	28.40		203.01A		TOTAL BALL		2 D.T. P					16.58		214.28F	2 D.T. P					16.58		214.28F	3 D.T. C/L			203.78	16.82	3428	191.08F	38938F												
TOTAL DRY CARGO				206,489	2592	35.15	91097	7.06A	18300A		TOTAL F.O.		3 D.T. P					16.58		214.28F	3 D.T. P					127.59	13.02	1661	56.89F	7259F	4 D.T. P			127.59	13.02	1661	56.89F	7259F									
CONTAINER CARGO PLUS CONTAINERS				WEATHER	HOLD	ROW	NO. @20'	NO. @40'			TOTAL BALLAST		4 D.T. S					127.59	13.02	1661	56.89F	7259F	4 D.T. P					83.49	12.87	1075	21.69F	1811F	5 D.T. S			83.49	12.87	1075	21.69F	1811F							
" "				2	1	2	2	16	60.80	171.50	TOTAL WEATHER 20' CONTS		5 D.B. P					83.49	12.87	1075	21.69F	1811F	5 D.B. S					209.27	9.78	2047	78.00A	16323A	6 D.T. S			172.96	9.82	1698	79.66A	13778A							
" "				2	2	6	6	48	58.93	163.00F	AVERAGE UNIT WT=8 TONS		6 D.T. P					83.49	12.87	1075	21.69F	1811F	6 D.T. P					242.14	9.90	2397	113.40A	27459A	7 D.T. S			242.14	9.90	2397	113.40A	27459A							
" "				2	3	2	2	16	60.80	154.50F	TOTAL WEATHER 40' CONTS		7 D.T. P					11.59		154.05A	7 D.T. S					11.59		154.05A	8 D.T. P			209.27	9.78	2047	78.00A	16323A											
" "				3	1	18	18	144	66.30	122.00F	AVERAGE UNIT WT=17 TONS		8 D.T. S					11.59		154.05A	8 D.T. P					9.73		186.76A	9 D.T. S			172.96	9.82	1698	79.66A	13778A											
" "				3	2	18	18	144	66.30	99.60F	TOTAL WEATHER		9 D.T. P					9.73		186.76A	9 D.T. P					9.73		186.76A	10 D.T. P		1641		242.14	9.90	2397	113.40A	27459A										
" "				4	1	18	18	144	66.30	77.20F	TOTAL WEATHER		10 D.T. S					9.73		186.76A	10 D.T. P					9.73		186.76A	11 D.T. S		1641		242.14	9.90	2397	113.40A	27459A										
" "				4	2	18	18	144	66.30	54.10F	TOTAL WEATHER		11 D.T. P					9.73		186.76A	11 D.T. S					9.73		186.76A	12 D.T. P																		
" "				4	3	12	12	96	62.30	25.80F	TOTAL WEATHER		12 D.T. S					9.73		186.76A	12 D.T. P					9.73		186.76A	13 D.T. S																		
" "				5	1	9	9	72	59.47	84.70A	TOTAL WEATHER		13 D.T. P					9.73		186.76A	13 D.T. S					9.73		186.76A	14 D.T. P																		
" "				6	1	24	24	192	61.33	106.98A	TOTAL WEATHER		14 D.T. S					9.73		186.76A	14 D.T. P					9.73		186.76A	15 D.T. S																		
" "				6	2	24	24	192	61.50	137.30A	TOTAL WEATHER		15 D.T. P					9.73		186.76A	15 D.T. S					9.73		186.76A	Fwd Sett P&S		40	201.74		19.06	3848	0.75A	151A										
" "				6	2	24	24	192	61.50	147.93A	TOTAL WEATHER		Fwd Sett P&S		40	201.74		19.06	3848	0.75A	151A	Aft Sett P&S		34	58.00		19.07	1106	16.50A	957A	Forepeak					11.65		242.86F									
" "				6	3	24	24	192	61.50	159.73A	TOTAL WEATHER		Aft Sett P&S		34	58.00		19.07	1106	16.50A	957A	Afterpeak					24.90		246.82A	TOTAL F.O.		6195	2452.25		4.46	10929	9.73F	23872F									
" "				7	1	7	7	56	58.01	193.33A	TOTAL WEATHER		TOTAL F.O.		6195	2452.25		4.46	10929	9.73F	23872F	TOTAL BALL		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A								
" "				7	1	7	7	56	58.01	193.33A	TOTAL WEATHER		TOTAL BALL		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A								
" "				7	1	7	7	56	58.01	193.33A	TOTAL WEATHER		TOTAL BALL		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A								
" "				7	1	7	7	56	58.01	193.33A	TOTAL WEATHER		TOTAL BALL		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A								
" "				7	1	7	7	56	58.01	193.33A	TOTAL WEATHER		TOTAL BALL		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A								
" "				7	1	7	7	56	58.01	193.33A	TOTAL WEATHER		TOTAL BALL		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A								
" "				7	1	7	7	56	58.01	193.33A	TOTAL WEATHER		TOTAL BALL		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A								
" "				7	1	7	7	56	58.01	193.33A	TOTAL WEATHER		TOTAL BALL		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A								
" "				7	1	7	7	56	58.01	193.33A	TOTAL WEATHER		TOTAL BALL		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A								
" "				7	1	7	7	56	58.01	193.33A	TOTAL WEATHER		TOTAL BALL		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282		1492.45	11.68	17439	18.72A	27941A								
" "				7	1	7	7	56	58.01	193.33A	TOTAL WEATHER		TOTAL BALL		3282		1492.45	11.68	17439	18.72A	27941A	TOTAL BALLAST		3282																							



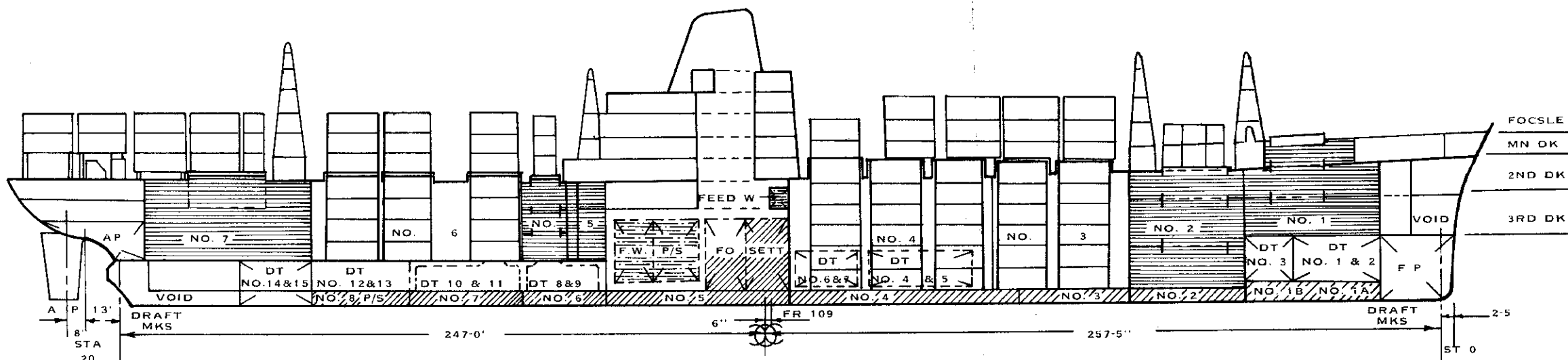
ITEM	TONS	KG	VERTICAL MOMENT	LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9116	30.24	284691	11.74A	110572A	
CREW & STORES	14	47.86	670	39.57A	554A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO	2592	35.15	91097	7.06A	18300A	
CONTAINER CARGO & CONTRS	5208	41.87	218053	12.67A	65983A	
REEFER CARGO	258	30.05	7753	78.75A	20318A	
FUEL OIL	2452	4.46	10929	9.73F	23872F	6195
SEA WATER BALLAST	1492	11.68	17439	18.72A	27941A	3282
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	21753	29.32	637810	10.55A	229555A	15312

-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER





MEAN S.W. DRAFT (SEE PAGE 5)	30.6'	LCG		10.55A
KM (SEE PAGE 5)	31.53	LCB (SEE PAGE 5)		9.59A
KG	29.32	TRIM LEVER FWD AFT		0.96A
GM	2.21	MOMENT TO TRIM 1"		1977
CORR FOR FREE SURFACE	0.70	TRIM IN INCHES FWD AFT		10.56
GM AVAILABLE	1.51	LCF  (PAGE 5)		22.50 A
GM REQUIRED (PAGE 8)	1.50	DRAFT FWD 30'-11 1/4" DRAFT AFT 30'-11 3/4"		



										LOCATION	BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT	REEFER CARGO	LOCATION	BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT			
DRY CARGO HOMOG. STOWAGE	NO. 1 MAIN DECK										13,930	78	56.71		203.44F			REEFER CARGO HOMOG. STOWAGE @ 200 CUFT TON	BOX 1 2ND DECK	3,359	17	40.49		82.38A			
	2ND "										17,660	99	45.49		204.96F				" 2 " "	3,576	18	40.50		82.40A			
	3RD "										10,222	57	32.15		201.52F				" 3 26'-6" FLAT	4,729	24	30.80		77.29A			
	NO. 2 2ND "										26,185	147	43.72		159.43F				" 4 26'-6" FLAT	4,729	24	30.80		77.29A			
	3RD "										27,800	155	29.26		158.57F				" 5 17'-0" FLAT	4,730	24	21.64		77.53A			
	TANK TOP										19,587	109	13.12		157.71F				" 6 17'-0" FLAT	4,730	24	21.64		77.53A			
	NO. 5 2ND DECK										4,875	35	41.69		85.89A				TOTAL REEFER	25,583	131	30.05	3937	78.75A	10316A		
	26'-6" FLAT										3,618	26	31.40		86.04A				TANK	F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	MOMENT	
	17'-0" FLAT										4,174	30	21.66		85.97A				NO.1A D.B. C/L	59	48.60		4.52	220	220.15F	10699F	
	NO. 7 2ND DECK										32,470	232	42.25		207.92A				1B D.B. C/L	158	82.67		4.56	377	195.13F	16131F	
	" (SPEC P'S)										4,016	29	41.65		179.50A				2 D.B. P	114	58.04		2.79	162	158.21F	9183F	
	17'-0" FLAT										41,952	299	28.40		203.01A				2 D.B. S	114	57.89		2.79	162	158.21F	9159F	
	TOTAL DRY CARGO										206,489	1296	35.15	45549	7.06A	9150A			3 D.B. C/L	435	127.19		2.51	319	115.38F	14675F	
																			3 D.B. P	52	28.89		3.19	92	112.05F	3237F	
	CONTAINER CARGO PLUS CONTAINERS	WEATHER	HOLD	ROW	NO. @20'	NO. @40'													RESERVE F.O.	3 D.B. S	52	28.87		3.19	92	112.05F	3235F
"		2	1	2	/	8	60.80										4 D.B. C/L	895		289.01		2.46	711	51.77F	14962F		
"		2	2	6	/	24	58.93											4 D.B. P		419	186.80		2.67	499	46.82F	8746F	
"		2	3	2	/	8	60.80											4 D.B. S		419	186.80		2.67	499	46.82F	8746F	
"		3	1	18	/	72	66.30											5 D.B. C L		537	170.41		2.45	418	18.11A	3086A	
"		3	2	18	/	72	66.30											5 D.B. P		599	178.88		2.60	465	26.20A	4687A	
"		4	1	18	/	72	66.30											5 D.B. S		599	172.29		2.59	446	25.88A	4459A	
"		4	2	18	/	72	66.30											6 D.B. C L		332	100.60		2.39	240	77.77A	7824A	
"		4	3	12	/	48	62.30											6 D.B. P		173	63.18		2.69	170	74.82A	4727A	
"		5	1	9	/	36	59.47											6 D.B. S		173	63.18		2.69	170	74.82A	4727A	
"		6	1	24	/	96	61.33											7 D.B. C L		435	135.01		2.45	331	115.25A	15560A	
"		6	2	24	/	96	61.50											7 D.B. P		130	47.25		2.93	138	108.99A	5150A	
"		6	2	/	/	-	62.30											7 D.B. S		130	47.25		2.93	138	108.99A	5150A	
"		6	3	24	/	96	61.50											8 D.B. P		148	59.79		2.75	164	153.91A	9202A	
"		7	1	7	/	28	58.01											8 D.B. S		148	59.91		2.75	165	153.91A	9221A	
"		7	1	/	/	-	55.35											1 D.T. S					16.58		214.29F		
"		7	2	13	/	52	60.00											2 D.T. P					16.58		214.28F		
"		7	3	15	/	60	61.90											3 D.T. C L					16.82		191.08F		
"		7	3	/	/	-	66.45											4 D.T. P		131		127.59	13.02	1661	56.89F	7259F	
"		7	3	/	/	-	66.45											5 D.T. S		131		127.59	13.02	1661	56.89F	7259F	
"		7	4	10	/	40	65.90											6 D.T. P					12.87		21.69F		
"		7	5	4	/	16	65.90											7 D.T. S					12.87		21.69F		
TOTAL WEATHER 20' CONTS				224	/	896	63.01	56457	60.00A	53761A								8 D.T. P					9.78		78.00A		
AVERAGE UNIT WT=4 TONS																		9 D.T. S					9.82		79.66A		
TOTAL WEATHER 40' CONTS																				10 D.T. P				9.90		113.40A	
AVERAGE UNIT WT=8 TONS																			11 D.T. S				9.90		113.40A		
TOTAL WEATHER				224	/	896													12 D.T. P				11.59		154.05A		
BELOW	3	1	32	/	224	31.08												13 D.T. S				11.59		154.05A			
"	3	2	34	/	238	30.26												14 D.T. P				9.73		186.76A			
"	4	1	36	/	252	29.08												15 D.T. S				9.73		186.76A			
"	4	2	36	/	252	29.08												Fwd Sett P&S	40	201.74		19.06	3845	0.75A	151A		
"	4	3	36	/	252	29.08												Aft Sett P&S	34	58.00		19.07	1106	16.50A	957A		
"	6	1	24	/	168	33.17												Forepeak				11.65		242.86F			
"	6	2	24	/	168	33.17												Afterpeak				24.90		246.82A			
"	6	3	22	/	154	34.26												TOTAL F.O.	6195	2452.25		4.46	10929	9.73F	23872F		
TOTAL BELOW					/	1708	30.78	52569	12.16F	20769F									TOTAL BALL	262		255.18	13.03	3322	56.93F	14518F	
AVERAGE UNIT WT=7 TONS																			Pot.W.Fwd. P&S	5776		123.16	21.31	2625	35.75A	4403A	
TOTAL 20' CONTAINER				468	/	2604	41.87	109027	12.67A	32992A									Pot.W.Aft P&S			108.59	21.53	2338	52.00A	5647A	
TOTAL 40' CONTAINER					/														Dist. Water	59		25.00	39.50	988	4.25F	106F	
																	Hot Wells			40.00	6.01	240	36.57F	1463F			
																	TOTAL F.W.	5835		296.75	20.85	6191	28.56A	8181A			

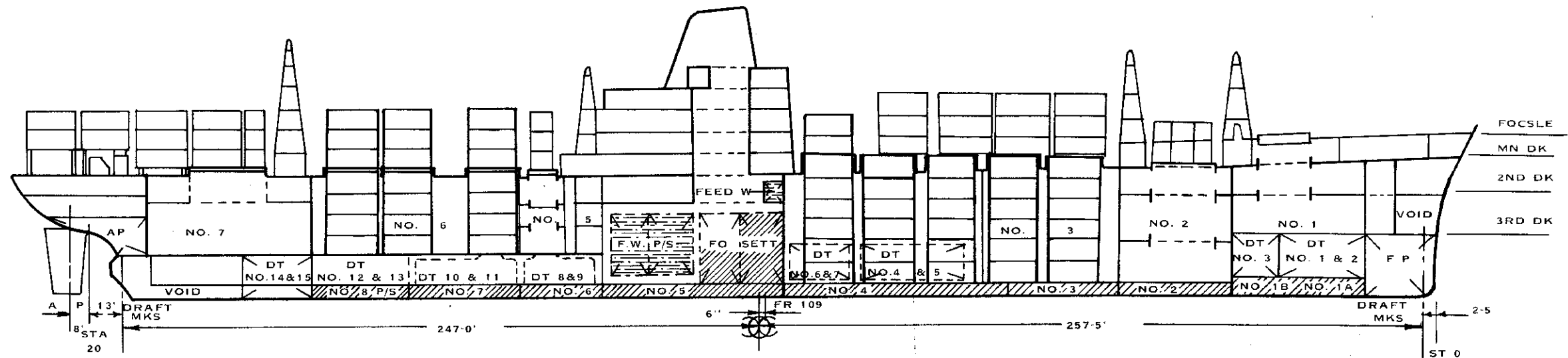
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PAGES
11-27







ITEM	TONS	KG	VERTICAL MOMENT	LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A'	
CREW & STORES	14	47.86	670	39.57A	554A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO	1296	35.15	45549	7.06A	9150A	
CONTAINER CARGO & CONT'RS	2604	41.87	109027	12.67A	32992A	
REEFER CARGO	131	30.05	3937	78.75A	10316A	
FUEL OIL	2452	4.46	10929	9.73F	23872F	6195
SEA WATER BALLAST	255	13.03	3322	56.93F	14518F	262
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	16489	28.22	465303	8.18A	134953A	12292

-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER

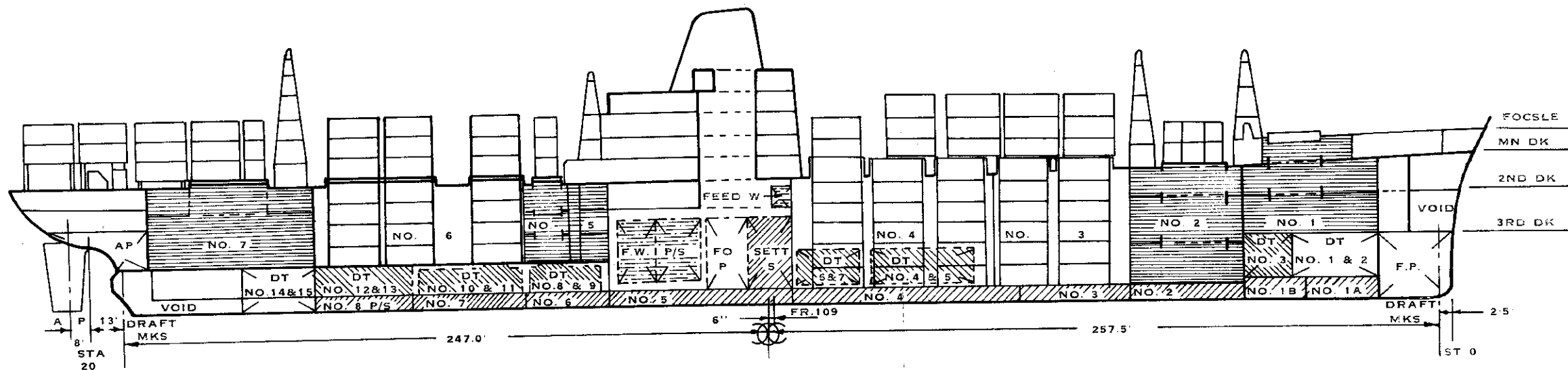
MEAN S.W. DRAFT (SEE PAGE 5)	24.2'	LCG 	8.18A
KM (SEE PAGE 5)	31.09	LCB (SEE PAGE 5)	6.54A
KG	28.22	TRIM LEVER FWD , AFT	1.64
GM	2.87	MOMENT TO TRIM 1"	1630
CORR FOR FREE SURFACE	0.75	TRIM IN INCHES FWD , AFT	16.59
GM AVAILABLE	2.12	LCF  (PAGE 5)	15.24A
GM REQUIRED (PAGE 8)	2.00	DRAFT FWD 23'-6" DRAFT AFT 24'-9"	



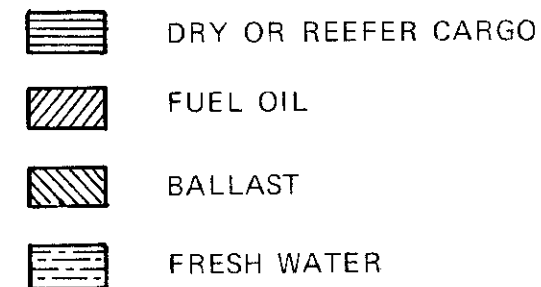
ITEM	TONS	KG	VERTICAL MOMENT	LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	14	47.86	670	39.57A	554A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO						
CONTAINER CARGO & CONT'RS						
REEFER CARGO						
FUEL OIL	2452	4.46	10929	9.73F	23872F	6195
SEA WATER BALLAST						
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	12203	24.87	303468	7.95A	97013A	12030

-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER

MEAN S.W. DRAFT (SEE PAGE 5)	<u>18.65'</u>	LCG	<u>7.95A</u>
KM (SEE PAGE 5)	<u>32.55</u>	LCB (SEE PAGE 5)	<u>4.40A</u>
KG	<u>24.87</u>	TRIM LEVER FWD , AFT	<u>3.55</u>
GM	<u>7.68</u>	MOMENT TO TRIM 1"	<u>1440</u>
CORR FOR FREE SURFACE	<u>0.99</u>	TRIM IN INCHES FWD , AFT	<u>30.08'</u>
GM AVAILABLE	<u>6.69</u>	LCF (PAGE 5)	<u>9.8A</u>
GM REQUIRED (PAGE 8)	<u>3.97</u>	DRAFT FWD <u>17'-4 1/2"</u> DRAFT AFT <u>19'-9 1/2"</u>	

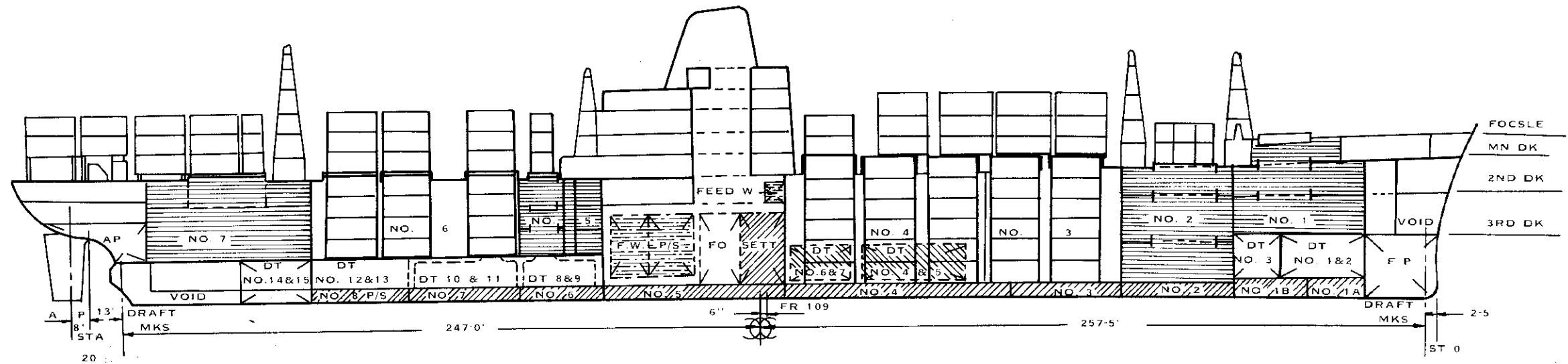


ITEM	TONS	KG	VERTICAL MOMENT	⊗	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	416	30.24	284694	11.74A	110572A	
CREW & STORES	30	43.80	1314	30.27A	908A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO	2592	35.15	91097	7.06A	18300A	
CONTAINER CARGO & CONT'RS	5208	41.87	218053	12.67A	65983A	
REEFER CARGO	258	30.05	7753	78.75A	20318A	
FUEL OIL	2394	4.10	9823	10.37F	24829F	9605
SEA WATER BALLAST	1953	11.66	22771	50.60A	98813A	3282
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	22172	28.99	642680	13.52A	299824A	18722







MEAN S. W. DRAFT (SEE PAGE 5)	30.95'
KM (SEE PAGE 5)	31.60
KG	28.99
GM	2.61
CORR FOR FREE SURFACE	0.84
GM AVAILABLE	1.77
GM REQUIRED (PAGE 8)	1.50

LCG ⊗	13.52A
LCB (SEE PAGE 5)	9.80A
TRIM LEVER FWD , AFT	3.72
MOMENT TO TRIM 1"	2000
TRIM IN INCHES FWD , AFT	41.24
LCF ⊗ (PAGE 5)	22.9
DRAFT FWD <u>29'-1 1/4"</u> DRAFT AFT <u>32'-5 1/4"</u>	

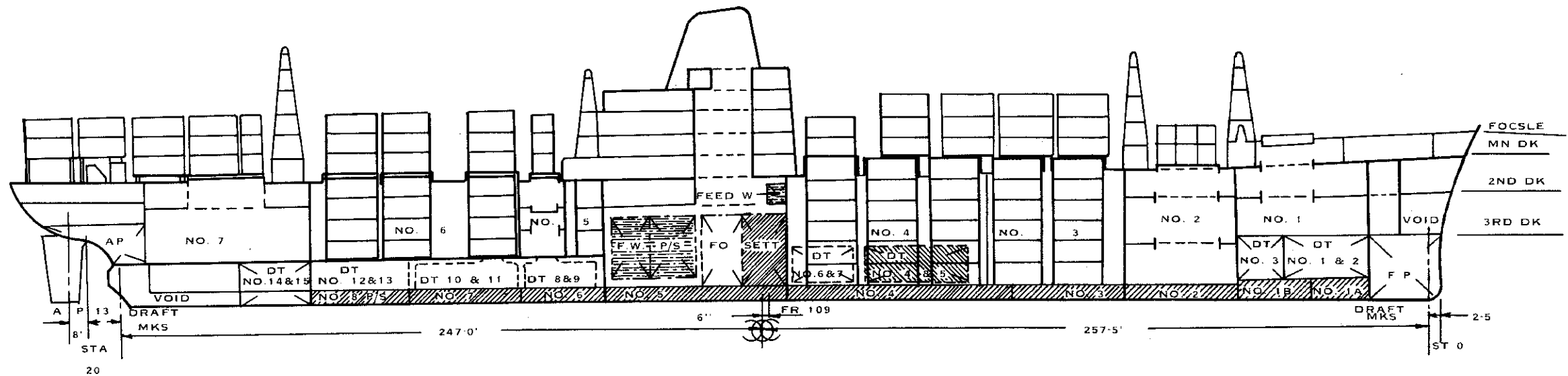


ITEM	TONS	KG	VERTICAL MOMENT	LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	30	43.80	1314	30.27A	908A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO	1296	35.15	45549	7.06A	9150A	
CONTAINER CARGO & CONTR'S	2604	41.87	109027	12.67A	32992A	
REEFER CARGO	131	30.05	3937	78.75A	10316A	
FUEL OIL	2394	4.10	9823	10.37F	24829F	9605
SEA WATER BALLAST	422	12.96	5472	42.97F	18140F	262
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	16614	28.11	466991	7.86A	130728A	15702





-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER

MEAN S.W. DRAFT (SEE PAGE 5)	<u>24.3'</u>	LCG	<u>7.86A</u>
KM (SEE PAGE 5)	<u>31.08</u>	LCB (SEE PAGE 5)	<u>6.63A</u>
KG	<u>28.11</u>	TRIM LEVER FWD , AFT	<u>1.23</u>
GM	<u>2.97</u>	MOMENT TO TRIM 1"	<u>1638</u>
CORR FOR FREE SURFACE	<u>.95</u>	TRIM IN INCHES FWD , AFT	<u>12.48</u>
GM AVAILABLE	<u>2.02</u>	LCF (PAGE 5)	<u>15.50A</u>
GM REQUIRED (PAGE 8)	<u>1.90</u>	DRAFT FWD <u>23'-9 1/4"</u> DRAFT AFT <u>24'-9 1/4"</u>	

LOCATION		BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT	LOCATION		BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT	
DRY CARGO	NO. 1 MAIN DECK	13,930		56.71		203.44F		REEFER CARGO	BOX 1 2ND DECK	3,359		40.49		82.38A		
	2ND "	17,660		45.49		204.96F			" 2 "	3,576		40.50		82.40A		
	3RD "	10,222		32.15		201.52F			" 3 26'-6" FLAT	4,729		30.80		77.29A		
	NO. 2 2ND "	26,185		43.72		159.43F			" 4 26'-6" FLAT	4,729		30.80		77.29A		
	3RD "	27,800		29.26		158.57F			" 5 17'-0" FLAT	4,730		21.64		77.53A		
	TANK TOP	19,587		13.12		157.71F			" 6 17'-0" FLAT	4,730		21.64		77.53A		
	NO. 5 2ND DECK	4,875		41.69		85.89A			TOTAL REEFER							
	26'-6" FLAT	3,618		31.40		86.04A			TANK	F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	MOMENT
	17'-0" FLAT	4,174		21.66		85.97A			NO.1A D.B. C/L	59	48.60		4.52	220	220.15F	10699F
	NO. 7 2ND DECK	32,470		42.25		207.92A			1B D.B. C/L	158	82.67		4.56	377	195.13F	16131F
	" (SPEC P'S)	4,016		41.65		179.50A			2 D.B. P	114	58.04		2.79	162	158.21F	9183F
	17'-0" FLAT	41,952		28.40		203.01A			2 D.B. S	114	57.89		2.79	162	158.21F	9159F
	TOTAL DRY CARGO								3 D.B. C/L	435	127.19		2.51	319	115.38F	14675F
	CONTAINER CARGO PLUS CONTAINERS	WEATHER	HOLD	ROW	NO. @20'	NO. @40'				3 D.B. P	52	28.89		3.19	92	112.05F
"		2	1					3 D.B. S	52	28.87		3.19	92	112.05F	3235F	
"		2	2					4 D.B. C/L	895	289.01		2.46	711	51.77F	14962F	
"		2	3					4 D.B. P	419	186.80		2.67	499	46.82F	8746F	
"		3	1					4 D.B. S	419	186.80		2.67	499	46.82F	8746F	
"		3	2					5 D.B. C/L	537	170.41		2.45	418	18.11A	3086A	
"		3	1					5 D.B. P	599	178.88		2.60	465	26.20A	4687A	
"		4	1					5 D.B. S	599	172.29		2.59	446	25.88A	4459A	
"		4	2					6 D.B. C/L	332	100.60		2.39	240	77.77A	7824A	
"		4	3					6 D.B. P	173	63.18		2.69	170	74.82A	4727A	
"		5	1					6 D.B. S	173	63.18		2.69	170	74.82A	4727A	
"		6	1					7 D.B. C/L	435	135.01		2.45	331	115.25A	15560A	
"		6	2					7 D.B. P	130	47.25		2.93	138	108.99A	5150A	
"		6	3					7 D.B. S	130	47.25		2.93	138	108.99A	5150A	
"		7	1					8 D.B. P	148	59.79		2.75	164	153.91A	9202A	
"		7	2					8 D.B. S	148	59.91		2.75	165	153.91A	9221A	
"		7	3					1 D.T. S				16.58		214.29F		
"		7	3					2 D.T. P				16.58		214.28F		
"		7	4					3 D.T. C/L				16.82		191.08F		
"		7	5					4 D.T. P				13.02		56.89F		
TOTAL WEATHER 20' CONIS								5 D.T. S				13.02		56.89F		
AVERAGE UNIT WT.								6 D.T. P				12.87		21.69F		
TOTAL WEATHER 40' CONIS								7 D.T. S				12.87		21.69F		
AVERAGE UNIT WT.								8 D.T. P				9.78		78.00A		
TOTAL WEATHER								9 D.T. S				9.82		79.66A		
BELOW		3	1					10 D.T. P				9.90		113.40A		
"		3	2					11 D.T. S				9.90		113.40A		
"		4	1					12 D.T. P				11.59		154.05A		
"		4	2					13 D.T. S				11.59		154.05A		
"		4	3					14 D.T. P				9.73		186.76A		
"	6	1					15 D.T. S				9.73		186.76A			
"	6	2					Fwd Sett P&S	40	201.74		19.06	3845	0.75A	151A		
"	6	3					Aft Sett P&S	34			19.07		16.50A			
TOTAL BELOW							Forepeak				11.65		242.86F			
AVERAGE UNIT WT							Afterpeak				24.90		246.82A			
TOTAL 20' CONTAINERS							TOTAL F.O.	9605	2394.25		4.10	9823	10.37F	24829F		
TOTAL 40' CONTAINERS							TOTAL BALL									
							Pot.W.Fwd. P&S	5776			123.16	21.31	2625	35.75A	4403A	
							Pot.W.Aft. P&S				108.59	21.53	2338	52.00A	5647A	
							Dist. Water	59			25.00	39.50	988	4.25F	106F	
							Hot Wells				40.00	6.01	240	36.57F	1463F	
							TOTAL F.W.	5835			296.75	20.85	6191	28.56A	8481A	



ITEM	TONS	KG	VERTICAL MOMENT	LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	30	43.80	1314	30.27A	908A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO						
CONTAINER CARGO & CONTRS						
REEFER CARGO						
FUEL OIL	2394	4.10	9823	10.37F	24829F	9605
SEA WATER BALLAST						
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	12161	24.92	303006	7.93A	96410A	15440

-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER

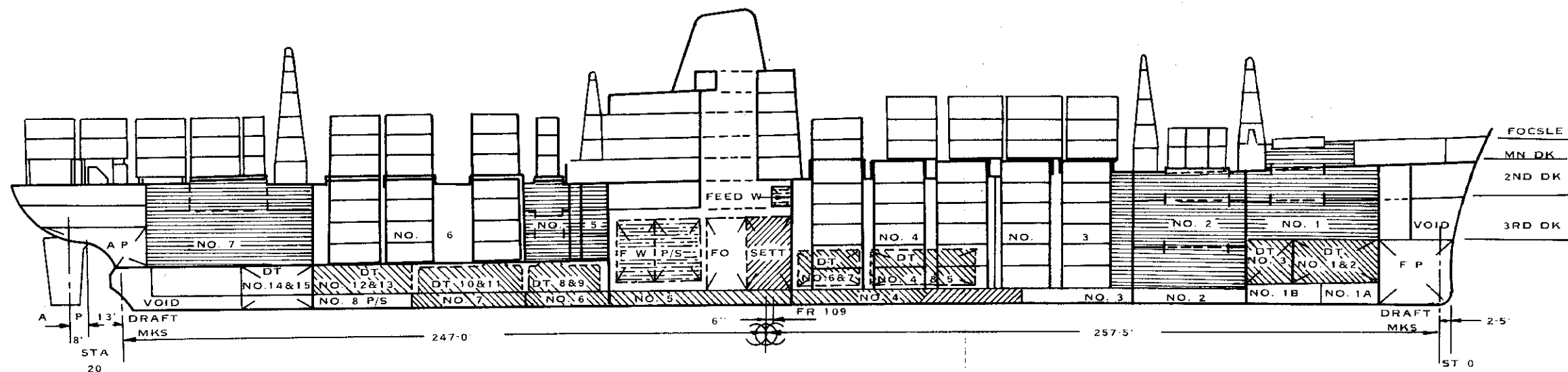
MEAN S.W. DRAFT (SEE PAGE 5)	18.6'	LCG	7.93A
KM (SEE PAGE 5)	32.58	LCB (SEE PAGE 5)	4.40A
KG	24.92	TRIM LEVER FWD AFT	3.53
GM	7.66	MOMENT TO TRIM 1"	1440
CORR FOR FREE SURFACE	1.27	TRIM IN INCHES FWD AFT	29.81
GM AVAILABLE	6.39	LCF (PAGE 5)	9.85A
GM REQUIRED (PAGE 8)	4.00	DRAFT FWD <u>17'-4 1/2"</u> DRAFT AFT <u>19'-8 3/4"</u>	

LOCATION		BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT	LOCATION	BALE C.F.	TONS	KG	MOMENT	LCG	MOMENT		
DRY CARGO HOMOG. STOWAGE	NO. 1 MAIN DECK		13.930	156	56.71		203.44F	REEFER CARGO HOMOG. STOWAGE @ 100 CUFT /TON FUEL OIL BALLAST	BOX 1 2ND DECK		3.359	34	40.49		82.38A	
	2ND "		17.660	197	45.49		204.96F		" 2 "		3.576	36	40.50		82.40A	
	3RD "		10.222	114	32.15		201.52F		" 3 26'-6" FLAT		4.729	47	30.80		77.29A	
	NO. 2 2ND "		26.185	293	43.72		159.43F		" 4 26'-6" FLAT		4.729	47	30.80		77.29A	
	3RD "		27.800	311	29.26		158.57F		" 5 17'-0" FLAT		4.730	47	21.64		77.53A	
	TANK TOP		19.587	219	13.12		157.71F		" 6 17'-0" FLAT		4.730	47	21.64		77.53A	
	NO. 5 2ND DECK		4.875	70	41.69		85.89A		TOTAL REEFER		25.853	258	30.05	7.753	78.75A	20318A
	26'-6" FLAT		3.618	52	31.40		86.04A		TANK	F.S.	TONS F.O.	TONS WTR	KG	MOMENT	LCG	MOMENT
	17'-0" FLAT		4.174	60	21.66		85.97A		NO.1A D.B. C/L				4.52		220.15F	
	NO. 7 2ND DECK		32.470	464	42.25		207.92A		1B D.B. C/L				4.56		195.13F	
	" (SPEC P.S)		4.016	57	41.65		179.50A		2 D.B. P				2.79		158.21F	
	17'-0" FLAT		41.952	599	28.40		203.01A		2 D.B. S				2.79		158.21F	
	TOTAL DRY CARGO		206.489	2592	35.15	91097	7.06A		3 D.B. C L				2.51		115.38F	
									3 D.B. P				3.19		112.05F	
							3 D.B. S				3.19		112.05F			
							4 D.B. C/L	895	289.01		2.46	711	51.77F	14962F		
							4 D.B. P			202.76	2.67	541	46.82F	9493F		
							4 D.B. S			202.76	2.67	541	46.82F	9493F		
							5 D.B. C/L			184.97	2.45	453	18.11A	3350A		
							5 D.B. P	2451		194.17	2.60	505	26.20A	5087A		
							5 D.B. S	2451		187.01	2.59	484	25.88A	4840A		
							6 D.B. C L			109.19	2.39	261	77.77A	8492A		
							6 D.B. P			68.59	2.69	185	74.82A	5132A		
							6 D.B. S			68.59	2.69	185	74.82A	5132A		
							7 D.B. C/L			146.53	2.45	359	115.25A	16888A		
							7 D.B. P			51.29	2.93	150	108.99A	5590A		
							7 D.B. S			51.29	2.93	150	108.99A	5590A		
							8 D.B. P				2.75		153.91A			
							8 D.B. S				2.75		153.91A			
							1 D.T. S			108.22	16.58	1794	214.29F	23190F		
							2 D.T. P			107.91	16.58	1789	214.28F	23123F		
							3 D.T. C L			203.78	16.82	3128	191.08F	38938F		
							4 D.T. P			127.59	13.02	1661	56.89F	7259F		
							5 D.T. S			127.59	13.02	1661	56.89F	7259F		
							6 D.T. P			83.49	12.87	1075	21.69F	1811F		
							7 D.T. S			83.49	12.87	1075	21.69F	1811F		
							8 D.T. P			209.27	9.78	2047	78.00A	16323A		
							9 D.T. S			172.96	9.82	1698	79.66A	13778A		
							10 D.T. P	1641		242.14	9.90	2397	113.40A	27459A		
							11 D.T. S	1641		242.14	9.90	2397	113.40A	27459A		
							12 D.T. P			230.03	11.59	2666	154.05A	35436A		
							13 D.T. S			230.03	11.59	2666	154.05A	35436A		
							14 D.T. P				9.73		186.76A			
							15 D.T. S				9.73		186.76A			
							Fwd Sett P&S	40	201.74		19.06	3845	0.75A	151A		
							Aft Sett P&S	34			19.07		16.50A			
							Forepeak			110.74	11.65	1290	242.86F	26894F		
							Afterpeak				24.90		246.82A			
							TOTAL F.O.	969	490.75		9.28	4556	30.18F	14811F		
							TOTAL BALL	8184		3746.53	8.40	31458	17.81A	66721A		
							Pot.W.Fwd.P&S	5776		123.16	21.31	2625	35.75A	4403A		
							Pot.W.Aft. P&S			108.59	21.53	2338	52.00A	5647A		
							Dist. Water	59		25.00	39.50	988	4.25F	106F		
							Hot Wells			40.00	6.01	240	36.57F	1463F		
							TOTAL F.W.	5835		296.75	20.85	6191	28.56A	8481A		
							FRESH WATER									





CONTAINER
CARGO
PLUS
CONTAINERS

FROM
PAGES
11-27

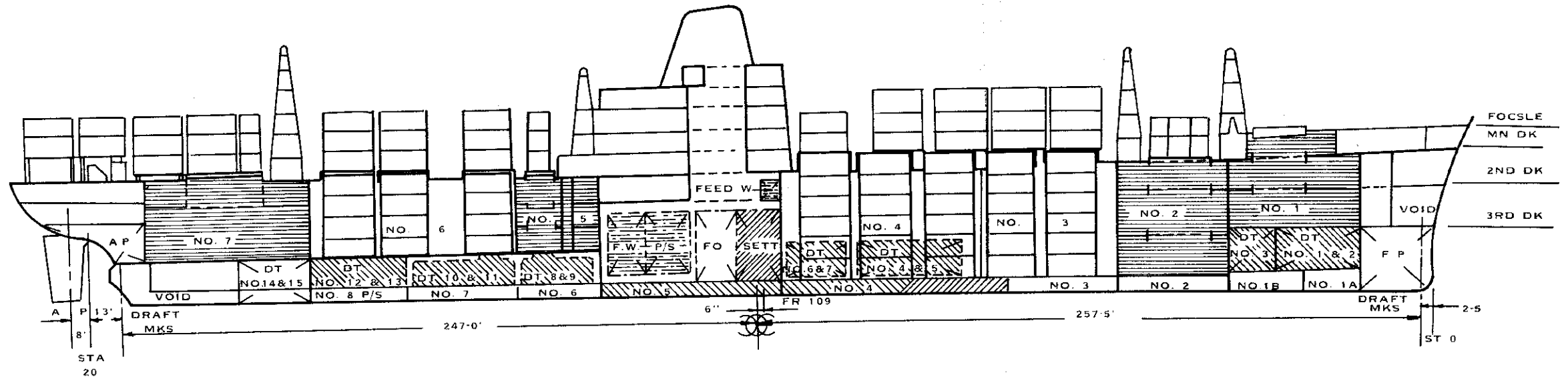
WEATHER	HOLD	ROW	NO. @20'	NO. @40'	TONS	KG	MOMENT	LCG	MOMENT
"	2	1	2	/	16	60.80		171.50F	
"	2	2	6	/	48	58.93		163.00F	
"	2	3	2	/	16	60.80		154.50F	
"	3	1	18	/	144	66.30		122.00F	
"	3	2	18	/	144	66.30		99.60F	
"	4	1	18	/	144	66.30		77.20F	
"	4	2	18	/	144	66.30		54.10F	
"	4	3	12	/	96	62.30		25.80F	
"	5	1	9	/	72	59.47		84.70A	
"	6	1	24	/	192	61.33		106.98A	
"	6	2	24	/	192	61.50		137.30A	
"	6	2	/	/	-	62.30		147.93A	
"	6	3	24	/	192	61.50		159.73A	
"	7	1	7	/	56	58.01		193.33A	
"	7	1	/	/		55.35		202.40A	
"	7	2	13	/	104	60.00		211.81A	
"	7	3	15	/	120	61.90		233.70A	
"	7	3	/	/	-	66.45		243.80A	
"	7	4	10	/	80	65.90		255.40A	
"	7	5	4	/	32	65.90		276.80A	
TOTAL WEATHER 20' CONTS			224	/	1792	63.01	112914	60.00A	107522A
AVERAGE UNIT WT=8 TONS									
TOTAL WEATHER 40' CONTS									
AVERAGE UNIT WT=17 TONS									
TOTAL WEATHER			224	/	1792				
BELOW	3	1	32	/	448	31.08		118.80F	
"	3	2	34	/	476	30.26		96.50F	
"	4	1	36	/	504	29.08		73.30F	
"	4	2	36	/	504	29.08		48.80F	
"	4	3	36	/	504	29.08		25.80F	
"	6	1	24	/	336	33.17		106.20A	
"	6	2	24	/	336	33.17		139.10A	
"	6	3	22	/	308	34.26		161.50A	
TOTAL BELOW			244	/	3416	30.78	105139	12.16F	41539F
AVERAGE UNIT WT=14 TONS									
TOTAL 20' CONTAINER			468	/	5208	41.87	218053	12.67A	65983A
TOTAL 40' CONTAINER									







ITEM	TONS	KG	VERTICAL MOMENT	⊗ LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	14	47.86	670	39.57A	554A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO	2592	35.15	91097	7.06A	18300A	
CONTAINER CARGO & CONT'RS	5208	41.87	218053	12.67A	65983A	
REEFER CARGO	258	30.05	7753	78.75A	20318A	
FUEL OIL	491	9.28	4556	30.18F	14811F	969
SEA WATER BALLAST	3747	8.40	31458	17.81A	66721A	8184
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	22047	29.28	645456	12.58A	277396A	14988

-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER

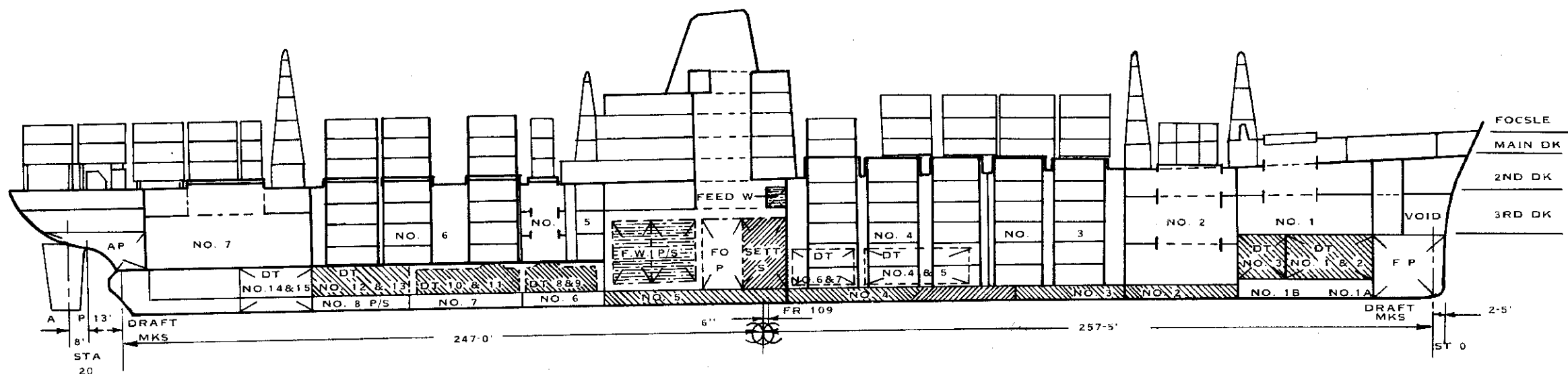
MEAN S.W. DRAFT (SEE PAGE 5)	30.90'	LCG	⊗	12.58A
KM (SEE PAGE 5)	31.59	LCB (SEE PAGE 5)		9.75A
KG	29.28	TRIM LEVER FWD AFT		2.83
GM	2.31	MOMENT TO TRIM 1"		1993
CORR FOR FREE SURFACE	0.68	TRIM IN INCHES, FWD AFT		31.31
GM AVAILABLE	1.63	LCF	⊗ (PAGE 5)	22.80A
GM REQUIRED (PAGE 8)	1.50	DRAFT FWD	29'-6"	DRAFT AFT 32'-0 1/2"







ITEM	TONS	KG	VERTICAL MOMENT	LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	14	47.86	670	39.57A	554A	
LUBE OIL	24	41.00	984	53.25A	1278A	
DRY CARGO	1296	35.15	45549	7.06A	9150A	
CONTAINER CARGO & CONT'RS	2604	41.87	109027	12.67A	32992A	
REEFER CARGO	131	30.05	3937	78.75A	10316A	
FUEL OIL	491	9.28	4556	30.18F	14811F	969
SEA WATER BALLAST	2955	9.62	28425	14.70A	43441A	8184
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	17228	28.10	484033	11.72A	201973A	14988



-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER

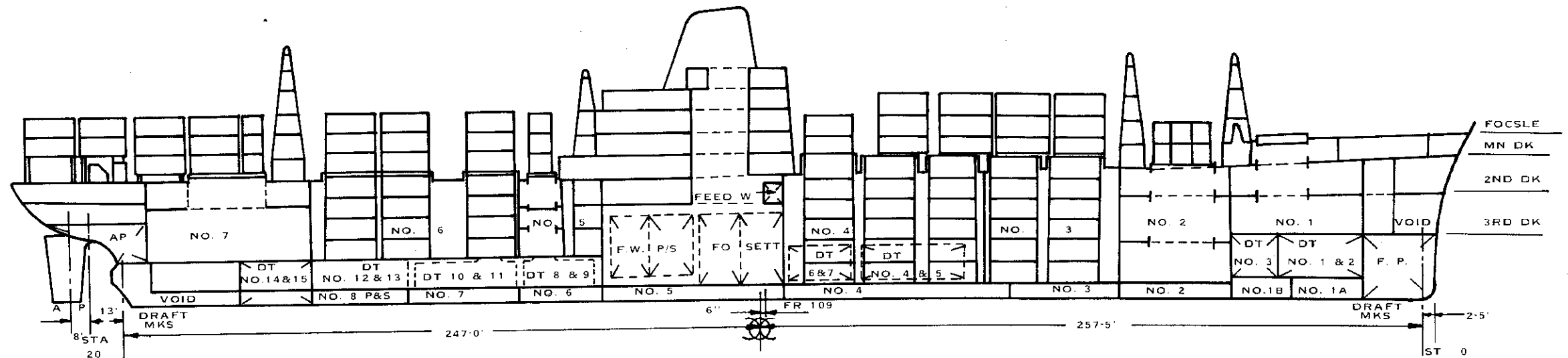
MEAN S.W. DRAFT (SEE PAGE 5)	25.10'	LCG	11.72A
KM (SEE PAGE 5)	31.06	LCB (SEE PAGE 5)	6.95A
KG	28.10	TRIM LEVEL FWD AFT	4.77
GM	2.96	MOMENT TO TRIM 1"	1670
CORR FOR FREE SURFACE	0.87	TRIM IN INCHES FWD AFT	49.21
GM AVAILABLE	2.09	LCF (PAGE 5)	16.25
GM REQUIRED (PAGE 8)	1.57	DRAFT FWD 22'-11"	DRAFT AFT 26'-11"



ITEM	TONS	KG	VERTICAL MOMENT	LCG	LONGITUDINAL MOMENT	FREE SURFACE
LIGHTSHIP	9416	30.24	284694	11.74A	110572A	
CREW & STORES	14	47.06	670	39.57A	554A	
LUBE OIL	24	41.00	984	53.25 A	1278A	
DRY CARGO						
CONTAINER CARGO & CONTRS						
REEFER CARGO						
FUEL OIL	491	9.28	4556	30.18F	14811F	5577
SEA WATER BALLAST	3045	7.98	24304	4.70A	14311A	8183
FRESH WATER	297	20.85	6191	28.56A	8481A	5835
TOTAL	13287	24.19	321399	9.06A	120385A	19595

-  DRY OR REEFER CARGO
-  FUEL OIL
-  BALLAST
-  FRESH WATER

MEAN S.W. DRAFT (SEE PAGE 5)	<u>20.10'</u>	LCG 	<u>9.06A</u>
KM (SEE PAGE 5)	<u>31.90</u>	LCB (SEE PAGE 5)	<u>4.93A</u>
KG	<u>24.19</u>	TRIM LEVER FWD AFT	<u>4.13</u>
GM	<u>7.71</u>	MOMENT TO TRIM 1"	<u>1482</u>
CORR FOR FREE SURFACE	<u>1.47</u>	TRIM IN INCHES FWD AFT	<u>37.03</u>
GM AVAILABLE	<u>6.24</u>	LCF  (PAGE 5)	<u>11.20 A</u>
GM REQUIRED (PAGE 8)	<u>3.55</u>	DRAFT FWD 18'-6" DRAFT AFT 21'-6"	



STABILOGAUGE INSTRUCTIONS

These vessels are equipped with a STABILOGAUGE manufactured by the American Hydromath Company. The stabilogauge can be used for "short form" determination of displacement, GM and mean draft. For detailed instructions and examples see the instruction book furnished with the instrument.

OPERATION

- 1) Before using the Stabilogauge, check the accuracy with the "check setting" on the front of the instrument.
- 2) From the cargo stowage plan and current tankage records enter and total the long tons in each of the five (5) horizontal zones. Set the totals into the gauge with the actuators on the right-hand side of the instrument.
- 3) Density Correction: Calculate the total number of density correction points for any cargo spaces or tanks having appreciable overhead free space. This can be done by using the nomogram on the front panel of the instrument or by the formula $\frac{W \times F}{40}$ where W is the weight (in tons) of cargo or liquid in the compartment, and F is the free space (in feet) between the top of the cargo or liquid and the underside of the deck beams or the tank top. Set the total into the gauge with the actuator on the upper left-hand side of the instrument.
- 4) Free Surface Correction Calculate the total number of free surface correction points as follows:
 - Positive F.S. Points
 - a) Free surface in tanks -- see the table on the front panel of the gauge.
 - b) Containers in Tier 9 -- add 20 points for each 100 tons of container weight in Tier 9.
 - c) Containers in Tier 8 -- add 10 points for each 100 tons of container weight in Tier 8.
 - Negative F.S. Points
 - a) F.O. Settlers -- subtract 11 points for each 100 tons of F.O. in the settlers.
 - b) Deep tanks -- subtract 4½ points for each 100 tons of liquid in Deep Tanks No. 8, 9, 10, 11, 14 & 15.

4) Continued

STABILOGAUGE INSTRUCTIONS (Continued)

APPROVED
SUBJECT TO COMMENTS IN
LETTER OF
COMMANDER, 12th Coast Guard District (mmt)

Der the total number of free surface points into the gauge with the actuator on the lower left-hand side of the instrument. If the total is negative, set the actuator at zero (0).

5) Read the displacement and available GM from the gauge. If the margin between the available GM shown on the stabilogauge and the required GM is less than 0.5 feet, the long form shall be worked to determine the GM more accurately. *

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6) Required GM shall be determined by the table on page 8. The red flag on the stabilogauge shall be disregarded.

CB Glass

CHIEF, MERCHANT MARINE TECHNICAL BRANCH
BY DIRECTION OF THE COMMANDER
TWELFTH COAST GUARD DISTRICT

