AD-A167 227 OCEAN CONSTRUCTION PLATFORM 'SEACON' TRIM & STABILITY STUDY REVISION(U) NAVAL FACILITIES ENGINEERING COMMAND WASHINGTON DC CHESAPEAKE DIV 05 MAR 803(4)36 652 1/1

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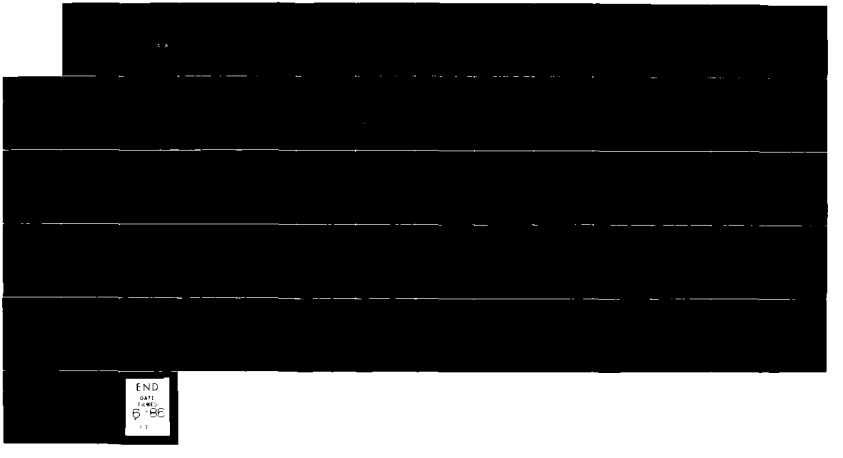

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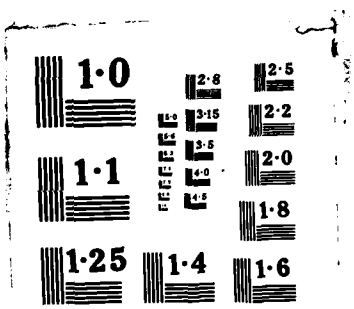

1·0
1·1
1·25
2·8
3·15
3·5
4·0
4·5
1·4
2·5
2·2
2·0
1·8
1·6

(1)

OCEAN CONSTRUCTION PLATFORM "SEACON"

TRIM & STABILITY STUDY

PREPARED BY:
J. J. HENRY CO. INC.
3-1-75

UPDATED BY:
GIANNOTTI & ASSOC., INC.
3-5-80

from 31 sheet

TABLE OF CONTENTS

INTRODUCTION

An update of the trim and stability study of the Ocean Construction Platform "Seacon" performed 3-1-75 has been updated and is included in this report. A new GM was arrived at by calculating all additions, removals and changes performed on the ship since the first study. A list of these changes is included in the appendix.

J. J. HENRY CO., INC.
Naval Architects and Marine Engineers

NAME OF COMPANY NAVAL ENGINEERING COMMAND
PROJECT TRIM & STABILITY

J.O. No. 1736
SHEET No. 1 OF
DATE 4-4-75
COMP. BY VRG C'K'D BY

REVISIONS

1
4-4-75

1. LIGHT SHIP WEIGHT HAS BEEN REVISED TO INCLUDE STRAPS ON DECK AND BOTTOM DUE TO SECTION MODULUS REQUIREMENT, RELOCATION OF AFT PROPULSION UNITS TO FR 26 AND INSTALLATION OF TWO ANTIROLLING TKS.
2. TANK CAPACITIES WERE MODIFIED TO SUIT PROPULSION RELOCATION AND ANTIROLLING TANKS ARRANGEMENT. SLUDGE TANK IS EXTENDED FROM FR 14 TO FR 15½ (P).
3. TRIM & STABILITY AND CURVES of STATICAL STABILITY WERE REVISED ACCORDINGLY TO REFLECT THE ABOVE CHANGES.

J. J. HENRY CO., INC.
Naval Architects and Marine Engineers

NAME OF COMPANY NAVAL ENGINEERING COMMAND
PROJECT TRIM & STABILITY

J.O. No. 1736
SHEET No. 2 OF
DATE 4-4-75
COMP. BY VRG C'K'D BY

NOTES:

1. HYDROSTATIC CURVES AND CROSS CURVES of STABILITY ARE CALCULATED BY COMPUTER BASED ON THE INPUT TAKEN FROM LINES PLAN (REF. 3) AFTER CORRECTED FOR CENTRAL WELL AND SKEGS.
2. CURVES of STATICAL STABILITY WERE CALCULATED BY COMPUTER USING "SHIP CHARACTERISTICS NAVY'S PROGRAM", AFTER DISPLACEMENT AND CENTERS OF GRAVITY HAVE BEEN CORRECTED FOR WELL.

REFERENCES:

1. DWG. No. 1736-100-1 GENERAL ARRANGEMENT
2. DWG. No. 1736-100.2 GENERAL ARRANGEMENT
3. YF 614-50500-480780 ALT. 5
   LINES & CORRECTED OFFSETS.

J. J. HENRY CO., INC.
Naval Architects and Marine Engineers

NAME OF COMPANY NAVAL ENGINEERING COMMAND
PROJECT TRIM & STABILITY

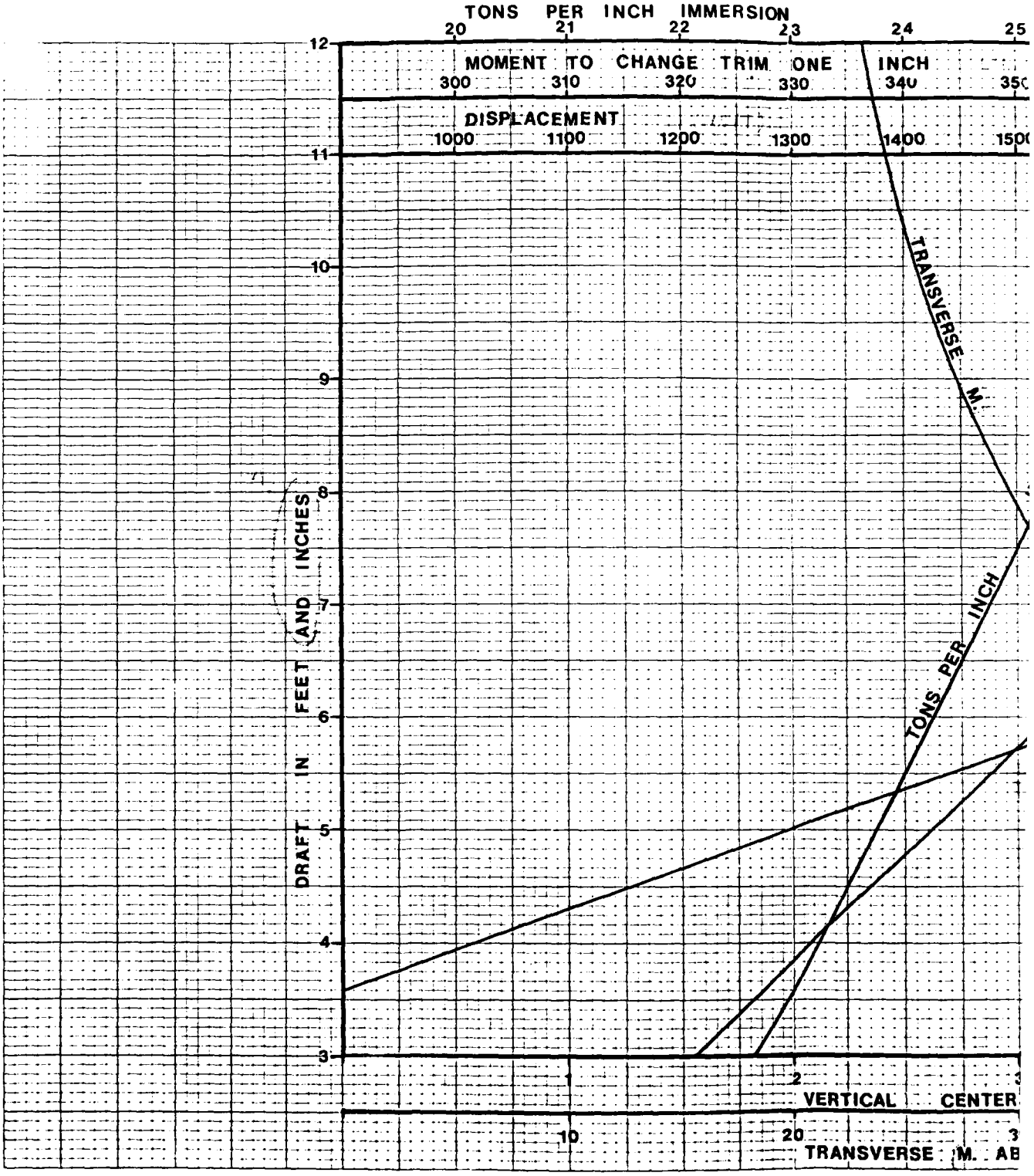
J.O. No. 1736
SHEET No. 3 OF
DATE 4-7-75
COMP. BY PAO C'K'D BY

SUMMARY OF CONDITIONS

CONDITION	DISPL. (TONS)	DRAFT (FT)	S.W. BALLAST (TONS)	GM (FT)	TRIM (FT)
LIGHT SHIP	1459	5.57	—	21.90	0.26
CAPACITY	3462	12.16	1531.5	11.15	1.30
FULL LOAD	2414	8.78	113.0	13.24	0.11
OPERATING IA	2153	7.93	301.4	14.59	2.40
OPERATING IIA	2790	9.98	1080.3	13.09	5.25
OPERATING IIIA	2990	10.63	1080.3	11.63	7.48
OPERATING IB	2817	10.08	966.0	12.72	2.00
OPERATING IC	2650	9.54	799.0	12.38	1.33

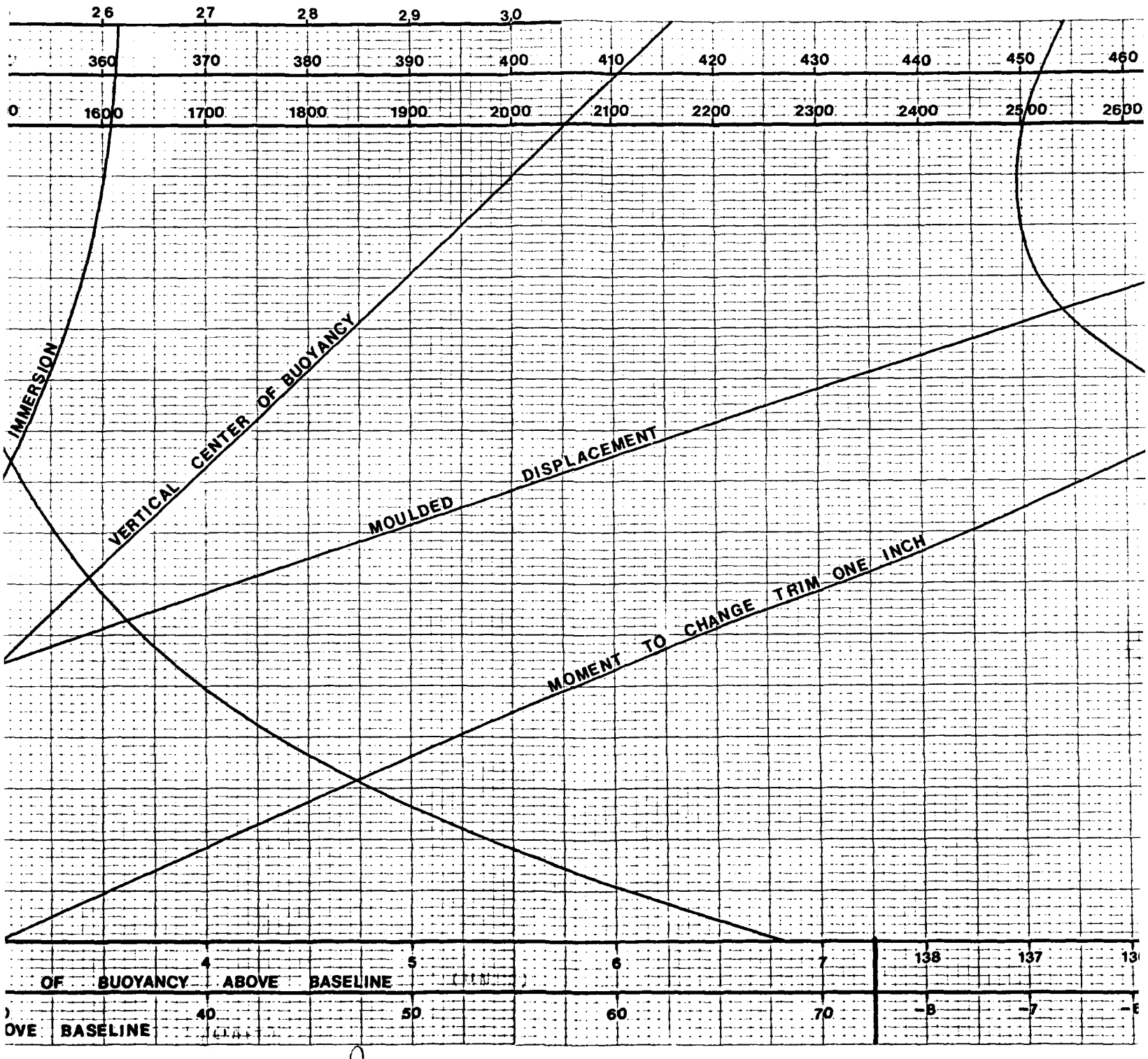
NOTES:

1. ANTI-ROLLING TANK HAS BEEN INCLUDED FOR ALL CONDITIONS
2. CRANE STOWAGED AT FR.22 FOR OPERATING CONDITION IIA
3. 200 TON BUOY ON DK. FOR OPERATING CONDITION IIIA.
4. FOR ORERATING CONDITION IIIA, TRIM IS TAKEN FROM CURVE OF STATICAL STABILITY CALCULATION.

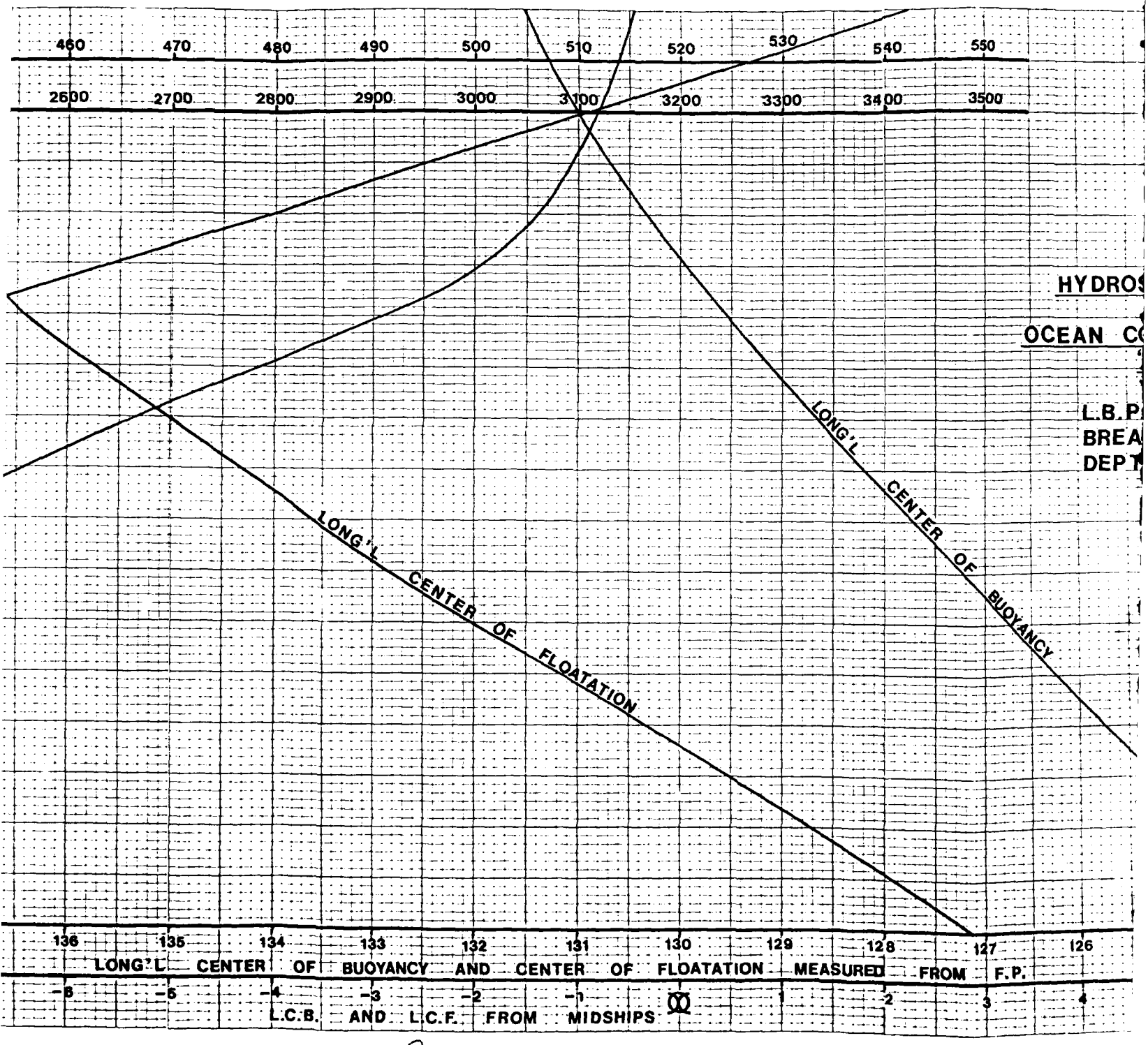


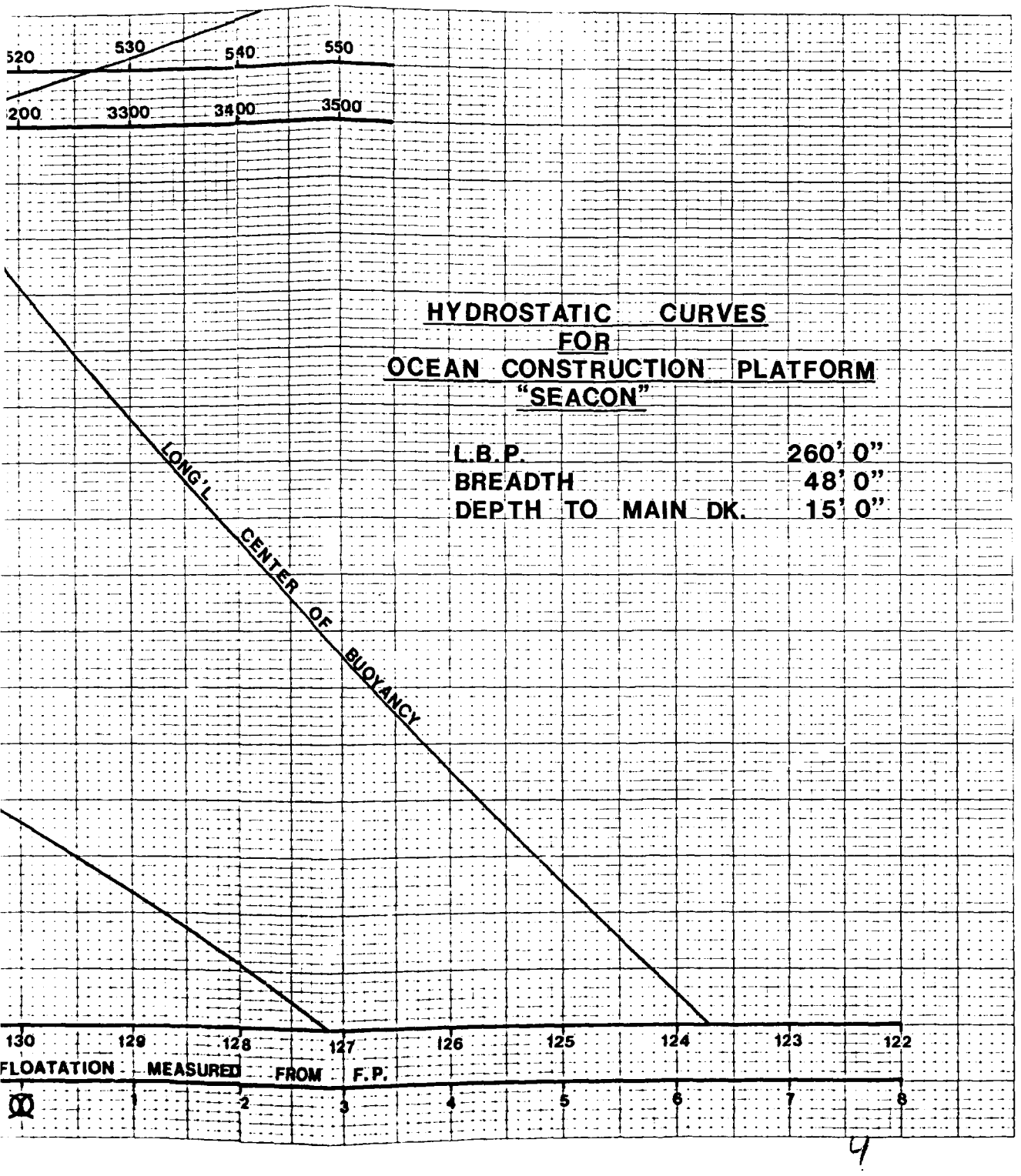
46 1930

K-E 10 X 12 TO THE INCH
KEUFFEL & ESSER CO


2.6
2.7
2.8
2.9
3.0
360
370
380
390
400
410
420
430
440
450
460
0
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
IMMERSION
VERTICAL CENTER OF BUOYANCY
MOULDED DISPLACEMENT
MOMENT TO CHANGE TRIM ONE INCH
4
5
6
7
138
137
OF BUOYANCY ABOVE BASELINE
40
50
60
70
-8
-7
OVE BASELINE

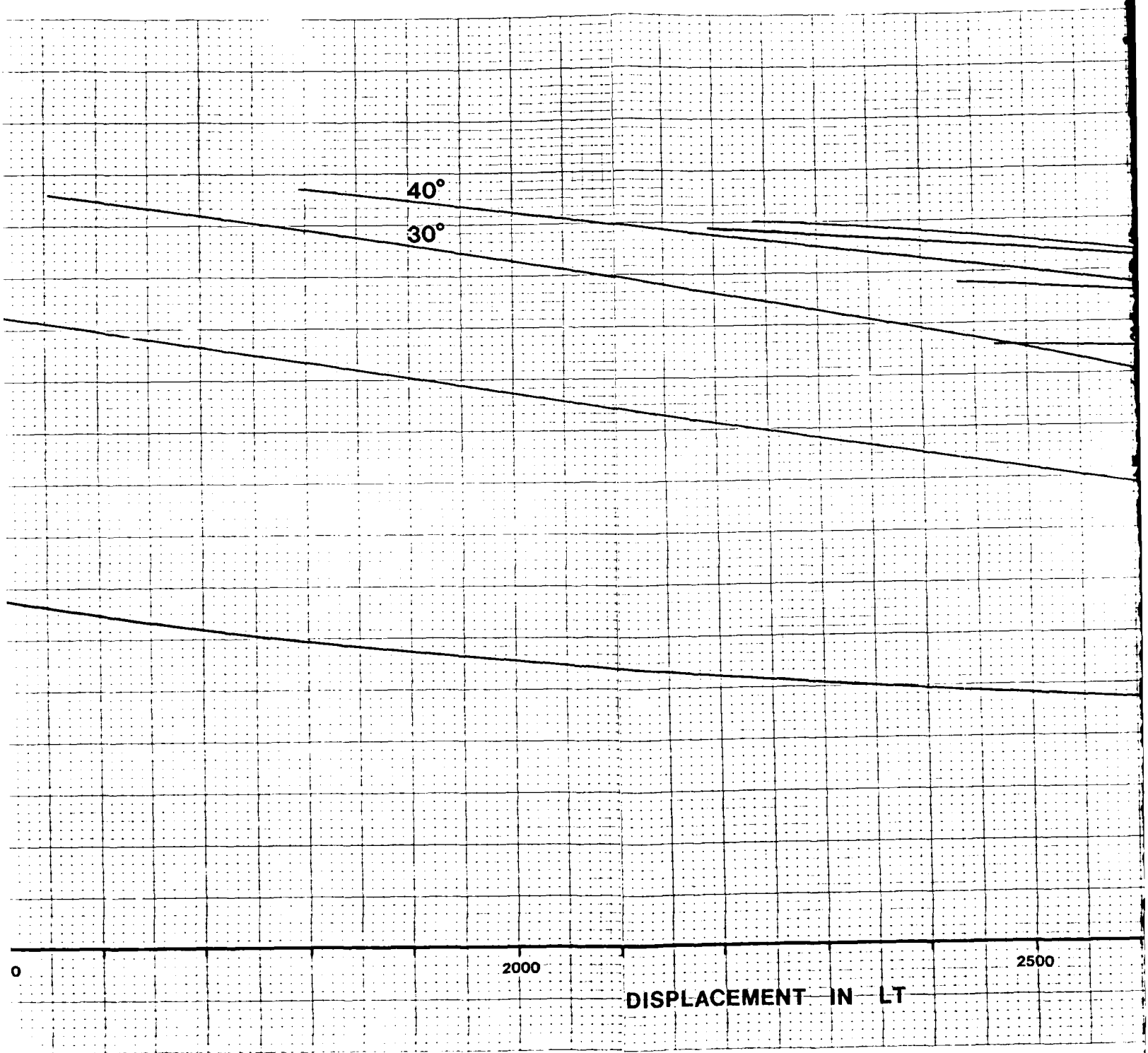
2

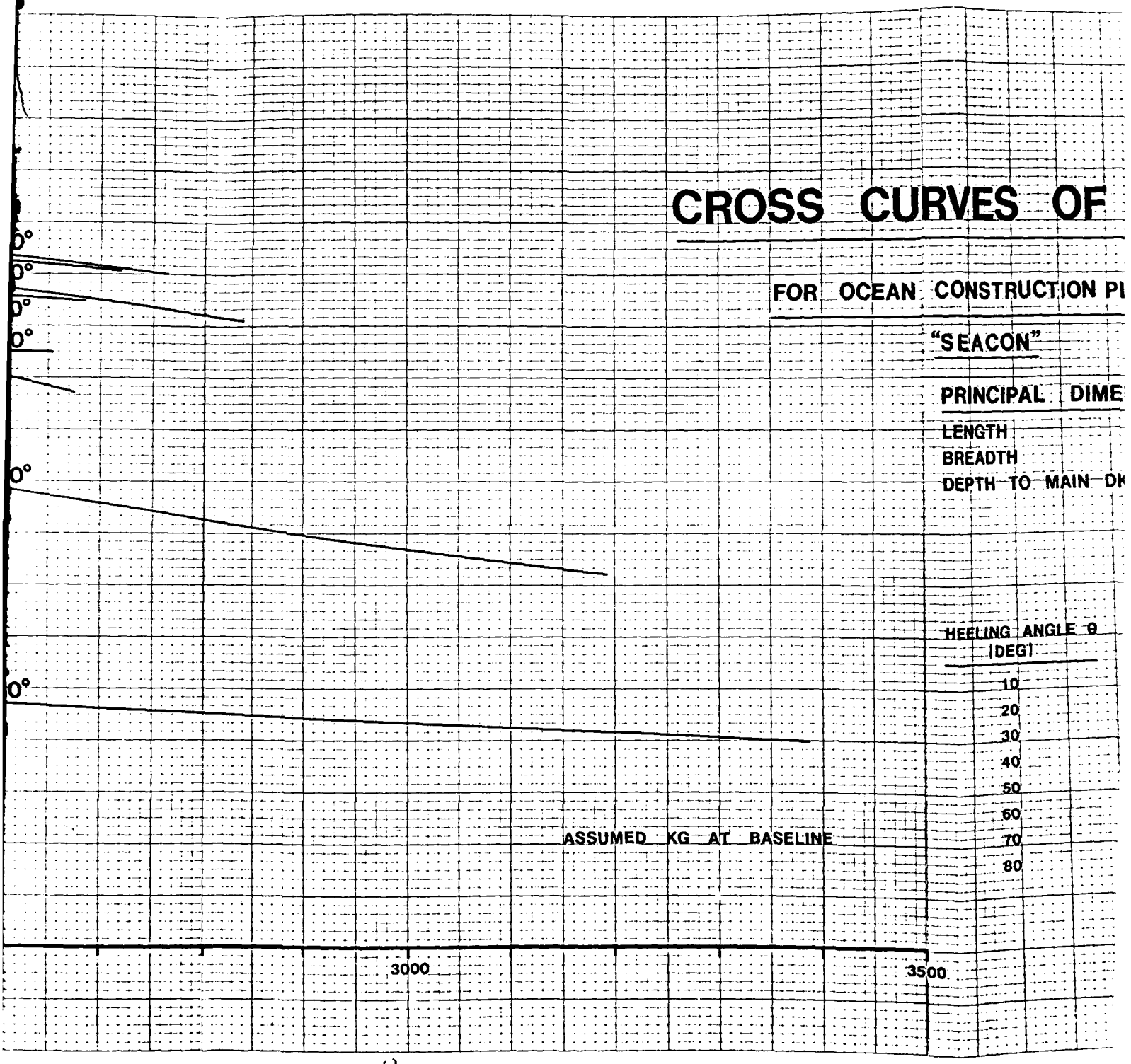

460 470 480 490 500 510 520 530 540 550
2600 2700 2800 2900 3000 3100 3200 3300 3400 3500
HYDROS
OCEAN C
L.B.P
BREA
DEPT
LONG'L CENTER OF BUOYANCY
LONG'L CENTER OF FLOATATION
136 135 134 133 132 131 130 129 128 127 126
LONG'L CENTER OF BUOYANCY AND CENTER OF FLOATATION MEASURED FROM F.P.
-6 -5 -4 -3 -2 -1 1 2 3 4
L.C.B. AND L.C.F. FROM MIDSHIPS


520
530
540
550
200
3300
3400
3500
HYDROSTATIC CURVES
FOR
OCEAN CONSTRUCTION PLATFORM
"SEACON"
L.B.P. 260' 0"
BREADTH 48' 0"
DEPTH TO MAIN DK. 15' 0"
LONG'L CENTER OF BUOYANCY
130
129
128
127
126
125
124
123
122
FLOATATION MEASURED FROM F.P.
0
1
2
3
4
5
6
7
8

4


RIGHTING ARM IN FT
0
2
4
6
8
10
12
14
16
1000
1500


40°
30°
0
2000
2500
DISPLACEMENT IN LT


CROSS CURVES OF
FOR OCEAN CONSTRUCTION PI
"SEACON"
PRINCIPAL DIME
LENGTH
BREADTH
DEPTH TO MAIN DK
HEELING ANGLE θ
(DEG)
10
20
30
40
50
60
70
80
ASSUMED KG AT BASELINE
3000
3500

CROSS CURVES OF STABILITY

FOR OCEAN CONSTRUCTION PLATFORM

"SEACON"

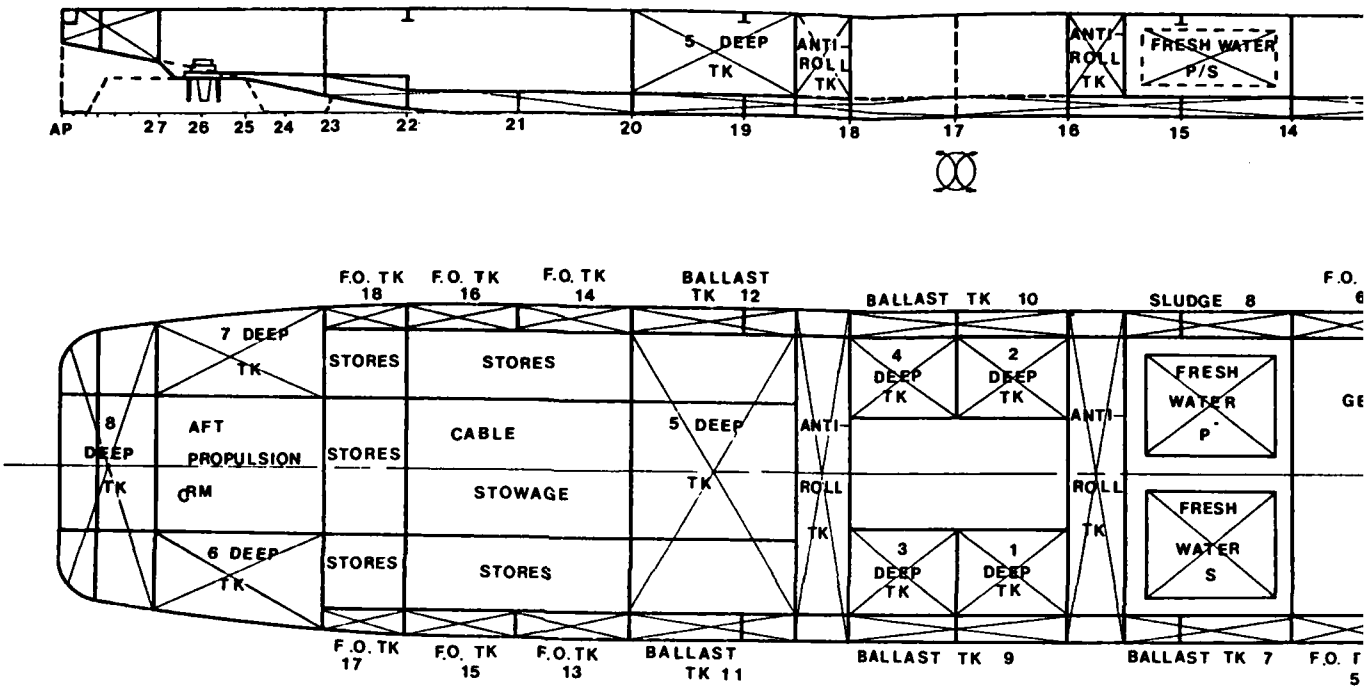
PRINCIPAL DIMENSIONS :

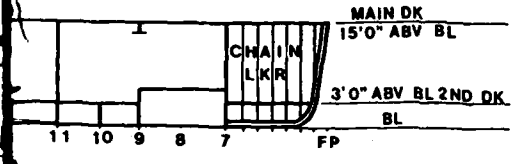
LENGTH	260'- 0"
BREADTH	48'- 0"
DEPTH TO MAIN DK	15'- 0"

HEELING ANGLE θ [DEG]	SIN θ
10	0.17365
20	0.34202
30	0.50000
40	0.64279
50	0.76604
60	0.86603
70	0.93969
80	0.98481

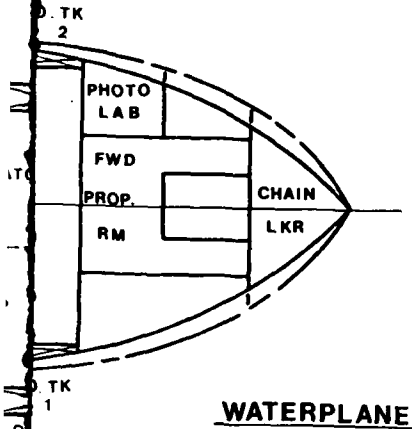
KG AT BASELINE

3500

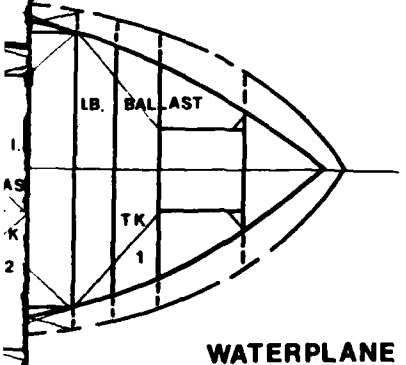

AP
27
26
25
24
23
22
21
20
19
18
17
16
15
14
5 DEEP TK
ANTI ROLL TK
ANTI ROLL TK
FRESH WATER P/S
F.O. TK 18
F.O. TK 16
F.O. TK 14
BALLAST TK 12
BALLAST TK 10
SLUDGE 8
7 DEEP TK
STORES
STORES
4 DEEP TK
2 DEEP TK
FRESH WATER P
8 DEEP TK
AFT PROPULSION RM
STORES
CABLE
STOWAGE
5 DEEP TK
ANTI ROLL TK
ANTI ROLL TK
6 DEEP TK
STORES
STORES
3 DEEP TK
1 DEEP TK
FRESH WATER S
F.O. TK 17
F.O. TK 15
F.O. TK 13
BALLAST TK 11
BALLAST TK 9
BALLAST TK 7
I.B. BALLAST TK 5
I.B. BALLAST TK 4
I.B. BALLAST TK 3



INBOARD PROFILE



WATERPLANE
ABV 2ND DK



WATERPLANE
BELOW 2ND DK

OCEAN CONSTRUCTION PLATFORM "SEACON"

L.B.P.	260'0"
BREADTH	48'0"
DEPTH TO MAIN DECK	15'0"

COMPARTMENT CAPACITIES

J. J. HENRY CO. INC.

DATE 3-27-71 PAGE 7

BY [illegible] JOB NO. [illegible]

REF. LINE FOR V.C.G. B.L. REF. LINE FOR L.C.G. F.P.

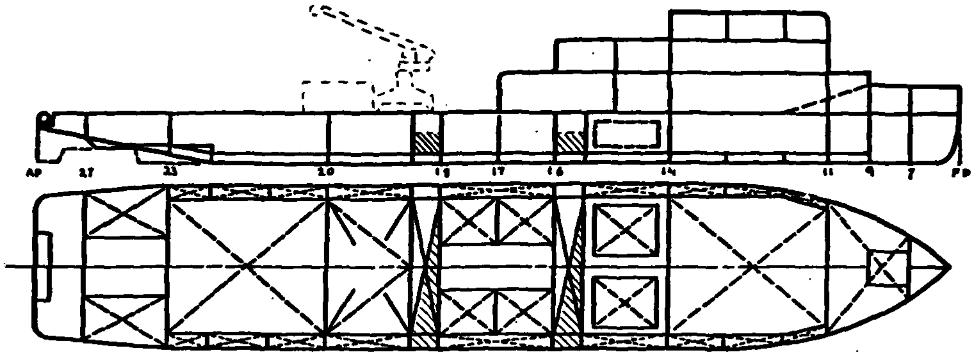
COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ABV. B.L. FT.	MOMENT ABV. B.L. FT. TONS	L.C.G. ABT. F.P. FT.	MOMENT ABT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (98%)								
#1 WING TK. (S)	11~12		11.3	9.80	111	44.0	497	1
#2 (P)	11~12		11.3	9.80	111	44.0	497	1
#3 (S)	12-13		19.3	7.64	147	58.0	1119	2
#4 (P)	12-13		19.3	7.64	147	58.0	1119	2
#5 (S)	13~14		21.0	7.64	160	74.0	1554	2
#6 (P)	13~14		21.0	7.64	160	74.0	1554	2
#13 (S)	20~21		21.0	7.64	160	186.0	3906	2
#14 (P)	20~21		12.8	6.28	80	188.6	2414	1
#15 (S)	21~22		21.0	7.60	160	202.0	4242	2
#16 (P)	21~22		21.0	7.60	160	202.0	4242	2
#17 (S)	22-23		14.7	7.64	112	216.0	3175	2
#18 (P)	22-23		14.7	7.64	112	216.0	3175	2
SUB TOTAL			208.4	7.78	1622	131.9	27496	21
FRESH WATER (100%)								
F.W. TK (S)	15		56.3	8.25	464	94.0	5292	141
(P)	15		56.3	8.25	464	94.0	5292	141
SUB TOTAL			112.6	8.25	928	94.0	10584	282
LUB. OIL (98%)								
		39						
SLUDGE TK (100%)	14-15½		38.6	7.80	301	94.0	3628	4
S.W. BALLAST (100%)								
#1 DR TK	7~11		45.2	2.48	112	29.8	1347	151
#2	11~14		148.0	1.55	229	60.0	8880	6150
#3	14~17		136.6	1.50	205	103.4	14124	7149
#4	17~20		136.6	1.50	205	156.6	21392	7149
#5	20~23		99.4	2.51	250	201.4	20019	6576
#7 WING TK (S)	14-15½		38.6	7.80	301	94.0	3628	4
#9 (S)	16~18		48.1	7.80	375	130.0	6253	5
#8 (P)	16~18		48.1	7.80	375	130.0	6253	5
#11 (S)	18½~20		38.6	7.80	301	166.0	6409	4
#10 (P)	18½~20		38.6	7.80	301	166.0	6409	4
#1 HOLD TK (S)	16~17		64.5	9.00	581	122.0	7869	66
#2 (P)	16~17		64.5	9.00	581	122.0	7869	66
#3 (S)	17~18		64.5	9.00	581	136.0	8701	66
#4 (P)	17~18		64.5	9.00	581	136.0	8701	66
#5 (P)	18½~20		329.1	9.00	2962	166.0	54631	3657
#6? (S)	23~27		83.3	10.00	833	232.1	19334	157
#7. (P)	23~27		83.3	10.00	833	232.1	19334	157
SUB TOTAL			1541.5	6.27	9606	144.66	221551	12842

SYMBOLS: =S.W.S. =F.W. =OIL CARGO =BULK CARGO =DRY CARGO =F.O OR D.O

TRIM & STABILITY SUMMARY

CONDITION OF VESSEL: LIGHT SHIP DATE: 3-3-80 PAGE: 8

CARGO ______ % CONSUMABLES ______ % BALLAST ______ BY: ______ JOB NO. ______



REF LINE FOR V.C.G. B.L. REF LINE FOR L.C.G. F.P.

SYMBOL	COMPARTMENT	CU FT TON	WEIGHT TONS	V.C.G. ADV. B.L. FT.	MOMENT ADV. BL FT TONS	LCG ABT. FP FT	MOMENT ABT. FP FT TONS	VERT. MOM OF F.S. FT TONS
DEADWEIGHT								
LIGHT SHIP			1459	14.7	21447	125.44	183017	4096
DISPLACEMENT								

TRIM

DRAFT AT LCF = 5.57 FT

MOMENT TO ALTER TRIM 1" = 408 FT-TS

LCB AFT OF FP = 126.32 FT

LCG AFT OF FP = 125.44 FT

TRIMMING LEVER = .88 FT

TRIM (BY [redacted], HEAD) = .26 FT

LCF AFT OF FP = 131.27 FT

DRAFT AT FP = 5.70 AP = 5.44

DRAFTS AT DRAFT MARKS

FWD ______ AFT ______

MEAN ______

STABILITY

METACENTRE ABOVE BL $\overline{KM}$ = 39.4 FT

CENTRE OF GRAVITY ABV BL $\overline{KG}$ = 14.7 FT

METACENTRIC HEIGHT $\overline{GM}$ = 24.7 FT

ALLOWANCE FOR FREE SURFACE = 2.80 FT

$\overline{GM}$ CORRECTED = 21.90 FT

$\overline{GM}$ REQUIRED = ______ FT

MOMENT TO HEEL 1° = ______ FT-TS

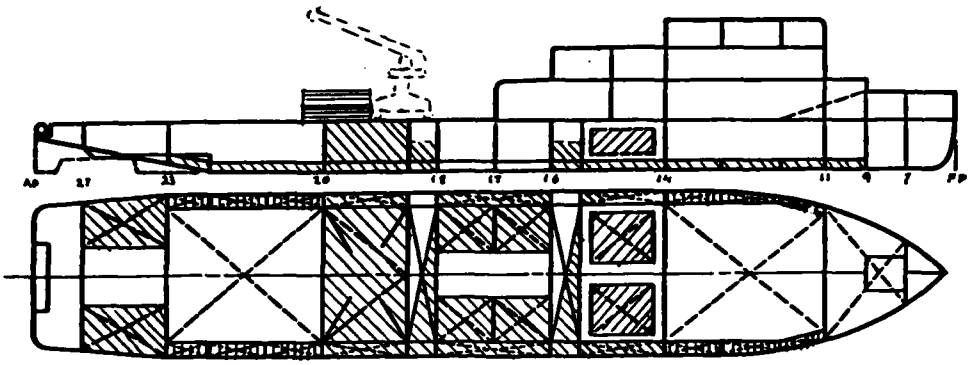
GIANNOTTI & ASSOCIATES, INC.
NAVAL ARCHITECTS
OCEAN ENGINEERS
MARINE ENGINEERS
703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

SYMBOLS
S.W. =
F.W. =
OIL CARGO =
BULK CARGO =
DRY CARGO =
F.O OR D.O. =

TRIM & STABILITY SUMMARY

CONDITION OF VESSEL: CAPACITY COND | DATE: 3-3-80 | PAGE: 9

CARGO ____ % CONSUMABLES 100 % BALLAST ____ | BY: ____ | JOB NO. ____



REF LINE FOR V.C.G. B.L. REF LINE FOR L.C.G. F.P.

SYMBOL	COMPARTMENT	CU FT TON	WEIGHT TONS	V.C.G. ADV. B.L FT.	MOMENT ADV. BL FT TONS	LCG ABT. FP FT	MOMENT ABT. EP FT TONS	VERT. MOM OF F.S. FT TONS
	CREW & EFFECTS		6	24.00	144	62.0	372	
	STORES		45	20.00	900	26.0	1170	
	FUEL OIL		2084	7.78	1622	131.9	27496	21
	FRESH WATER		112.6	8.25	92.8	94.0	10584	282
	SLUDGE		19.3	4.35	84	94.0	1814	4
	SW BALLAST		1531.5	6.27	9606	144.7	221551	
	DECK LOAD		100	19.00	1900	176.5	17650	
	DEADWEIGHT		2022.8		15184		250637	307
	LIGHT SHIP		1459	14.70	21447	125.44	183017	4096
	DISPLACEMENT		3481.8	10.57	36588	133.94	463633	4403

TRIM

DRAFT AT LCF	= 12.16	FT
MOMENT TO ALTER TRIM 1"	= 516.4	FT-TS
LCB AFT OF FP	= 131.61	FT
LCG AFT OF FP	= 133.94	FT
TRIMMING LEVER	= 2.33	FT
TRIM (BY STERN, ~~HEAD~~)	= 1.30	FT
LCF AFT OF FP	= 136.52	FT

DRAFT AT FP = 11.48 AP = 12.78

DRAFTS AT DRAFT MARKS

FWD ____ AFT ____

MEAN ____

STABILITY

METACENTRE ABOVE BL	$\overline{KM}$ = 23.0	FT
CENTRE OF GRAVITY ABV BL	$\overline{KG}$ = 10.57	FT
METACENTRIC HEIGHT	$\overline{GM}$ = 12.43	FT
ALLOWANCE FOR FREE SURFACE	= 1.28	FT
$\overline{GM}$ CORRECTED	= 11.15	FT
$\overline{GM}$ REQUIRED	= ____	FT
MOMENT TO HEEL 1°	= ____	FT-TS

GIANNOTTI & ASSOCIATES, INC.
NAVAL ARCHITECTS
OCEAN ENGINEERS
MARINE ENGINEERS
703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

CAPACITY COND.

COMPARTMENT CAPACITIES

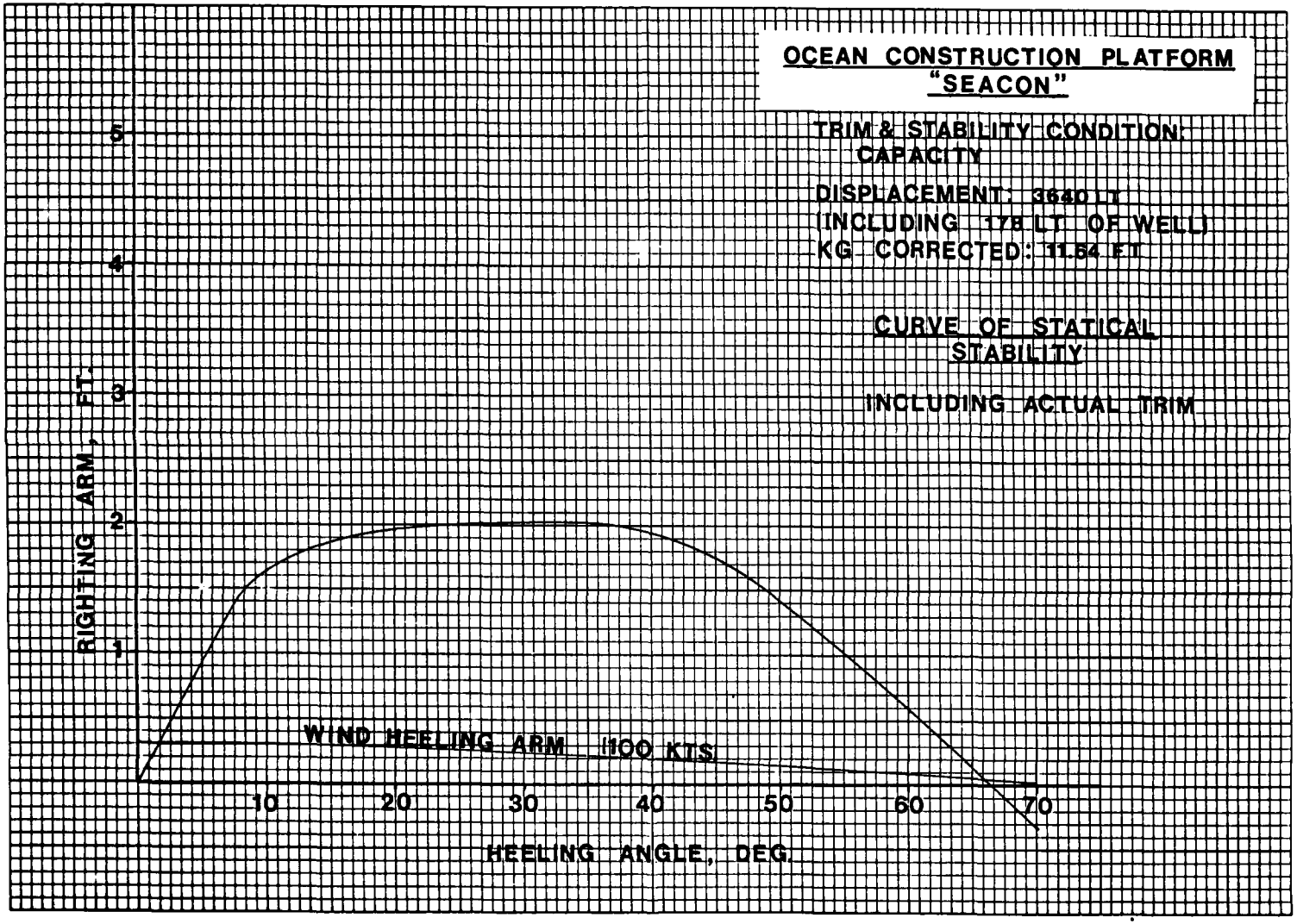
J. J. HENRY CO. INC.

DATE 1-2-75 PAGE 10

BY [illegible] JOB NO. 1155

REF. LINE FOR V.C.G. B. L. REF. LINE FOR L.C.G. F.P.

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ABV. B.L. FT.	MOMENT ABV. B.L. FT. TONS	L.C.G. ABT. F.P. FT.	MOMENT ABT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (98%)								
#1 WING TK (S)	11-12		11.3	9.80	111	44.0	497	1
#2 (P)	↓		↓	↓	↓	↓	↓	↓
#3 (S)	12-13		19.3	7.64	147	58.0	1119	2
#4 (P)	↓		↓	↓	↓	↓	↓	↓
#5 (S)	13-14		21.0	↓	160	74.0	1554	↓
#6 (P)	↓		↓	↓	↓	↓	↓	↓
#13 (S)	20-21		↓	↓	↓	186.0	3906	↓
#14 (P)	↓		12.8	6.28	80	188.6	2414	1
#15 (S)	21-22		21.0	7.60	160	202.0	4242	2
#16 (P)	↓		↓	↓	↓	↓	↓	↓
#17 (S)	22-23		14.7	7.64	112	216.0	3175	↓
#18 (P)	↓		↓	↓	↓	↓	↓	↓
SUB TOTAL			208.4	7.78	1622	131.9	27496	21
FRESH WATER (100%)								
FW TK (S)	15		56.3	8.25	464	94.0	5292	14.1
↓ (P)	↓		↓	↓	↓	↓	↓	↓
SUB TOTAL			112.6	8.25	928	94.0	10584	282
LUB OIL TK. (98%)								
SLUDGE TK. (50%)	14-15½		19.3	4.35	84	94.0	1814	4
S.W BALLAST (100%)								
#1 DB TK	7-11		45.2	2.48	112	29.8	1347	
#2	11-14		149.0	1.55	229	60.0	8940	
#3	14-17		136.6	1.50	205	103.7	14124	
#4	17-20		136.6	1.50	205	156.6	21392	
#5	20-23		99.4	2.51	250	201.9	20069	
#7 WING TK (S)	14-15½		38.6	7.80	301	94.0	3628	
#8 (P)	16-18		48.1	↓	375	130.0	6253	
#9 (S)	↓		↓	↓	↓	↓	↓	
#10 (P)	18½-20		38.6	↓	301	166.0	6409	
#11 (S)	↓		↓	↓	↓	↓	↓	
#1 HOLD TK (S)	16-17		64.5	9.00	581	122.0	7869	
#2 (P)	↓		↓	↓	↓	↓	↓	
#3 (S)	17-18		↓	↓	↓	138.0	8901	
#4 (P)	↓		↓	↓	↓	↓	↓	
#5 (S)	18½-20		339.1	↓	2962	166.0	56631	
#6 (S)	23-27		83.3	10.40	833	232.1	19334	
#7 (P)	↓		↓	↓	↓	↓	↓	
SUB TOTAL			1531.5	6.27	9606	144.66	221551	

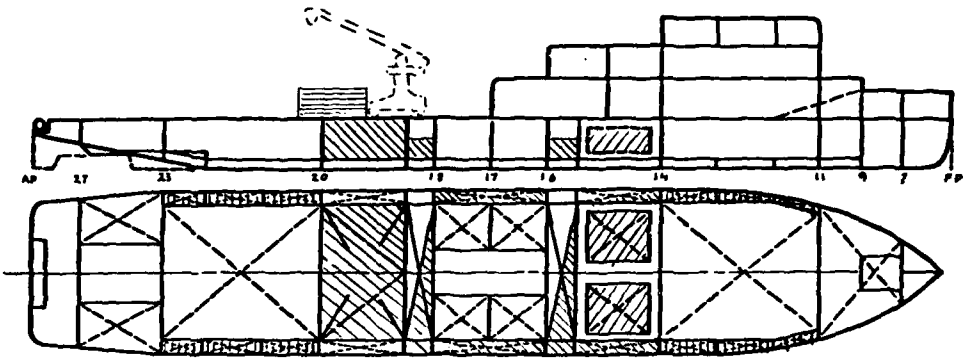


SYMBOLS =S.W. =F.W. = =OIL CARGO =BULK CARGO =DRY CARGO =F.O OR D.O

TRIM & STABILITY SUMMARY

CONDITION OF VESSEL: FULL LOAD | DATE: 3-3-80 | PAGE: 12

CARGO ____ % CONSUMABLES 100 % BALLAST 30 % | BY: ____ | JOB NO. ____



REF LINE FOR V.C.G. B.L. REF LINE FOR L.C.G. F.P.

SYMBOL	COMPARTMENT	CU FT TON	WEIGHT TONS	V.C.G. ADV. B.L FT.	MOMENT ADV. BL FT TONS	LCG ABT. FP FT	MOMENT ABT. EP FT TONS	VERT. MOM OF F.S. FT TONS
	CREW & EFFECTS		6	24.06	144	62.0	372	
	STORES		45	20.00	900	26.0	1170	
	FUEL OIL		208	7.78	1632	131.9	27496	21
	FRESH WATER		113	8.25	928	94.0	10584	282
	SLUDGE		19	4.35	84	94.0	1814	41
	DECK LOAD		100	19.00	1900	176.5	17650	
	B.W. BALLAST		464		9013		70765	
	DEADWEIGHT		955		9591		129851	307
	LIGHT SHIP		1459	14.70	21447	125.44	183017	4096
	DISPLACEMENT		2414	12.84	30996	129.59	312830	4403

TRIM

DRAFT AT LCF	= 8.78	FT
MOMENT TO ALTER TRIM 1"	= 485.7	FT-TS
LCB AFT OF FP	= 129.33	FT
LCG AFT OF FP	= 129.59	FT
TRIMMING LEVER	= 0.26	FT
TRIM (BY STERN, ~~HEAD~~)	= 0.11	FT
LCF AFT OF FP	= 136.16	FT

DRAFT AT FP = 8.72 AP = 8.83

DRAFTS AT DRAFT MARKS

FWD ____ AFT ____

MEAN ____

STABILITY

METACENTRE ABOVE BL	$\overline{KM}$ = 27.90	FT
CENTRE OF GRAVITY ABV BL	$\overline{KG}$ = 12.84	FT
METACENTRIC HEIGHT	$\overline{GM}$ = 15.06	FT
ALLOWANCE FOR FREE SURFACE	= 1.82	FT
$\overline{GM}$ CORRECTED	= 13.24	FT
$\overline{GM}$ REQUIRED	= ____	FT
MOMENT TO HEEL 1°	= ____	FT-TS

GIANNOTTI & ASSOCIATES, INC.
NAVAL ARCHITECTS
OCEAN ENGINEERS
MARINE ENGINEERS
703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

FULL LOAD

COMPARTMENT CAPACITIES

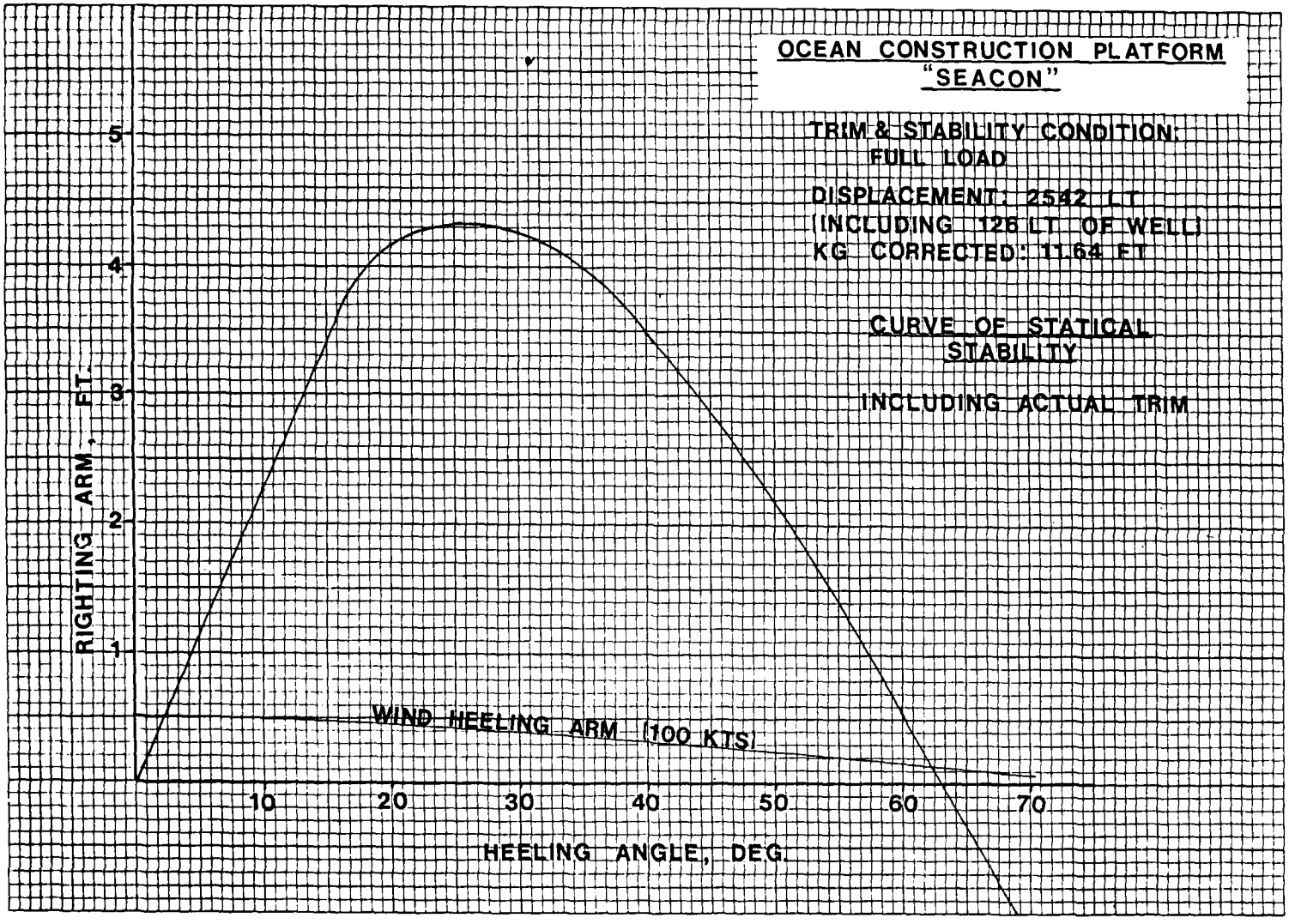
J. J. HENRY CO. INC.

DATE 4-2-75 PAGE 13

BY VRS JOB NO. 1736

REF. LINE FOR V.C.G. B.L REF. LINE FOR L.C.G. F.P.

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ADV. BL. FT.	MOMENT ADV. BL. FT. TONS	L.C.G. ABT. F.P. FT.	MOMENT ABT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (98%)								
#1 WING TK (S)	11-12		11.3	9.80	111	44.0	497	1
#2 (P)	11-12		11.3	9.80	111	44.0	497	1
#3 (S)	12-13		19.3	7.64	147	58.0	1119	2
#4 (P)	12-13		19.3	7.64	147	58.0	1119	2
#5 (S)	13-14		21.0	7.64	160	74.0	1554	2
#6 (P)	13-14		21.0	7.64	160	74.0	1554	2
#13 (S)	20-21		21.0	7.64	160	186.0	3906	2
#14 (P)	20-21		12.8	6.28	80	188.6	2414	1
#15 (S)	21-22		21.0	7.60	160	202.0	4242	2
#16 (P)	21-22		21.0	7.60	160	202.0	4242	2
#17 (S)	22-23		14.7	7.64	112	216.0	3175	2
#18 (P)	22-23		14.7	7.64	112	216.0	3175	2
SUB TOTAL			208.4	7.78	1622	131.9	27496	21
FRESH WATER (100%)								
F.W. TK. (S)	15		56.3	8.25	464	94.0	5292	141
F.W. TK. (P)	15		56.3	8.25	464	94.0	5292	141
SUB TOTAL			112.6	8.25	929	94.0	10584	282
SLUDGE TK. 50% P	14-15½		19.3	4.35	84	94.0	1814	4
S.W. BALLAST								
#7 WING TK. (S)	14-15½		33.6	7.80	301	94.0	3628	
#8 (P)	16-18		48.1	7.80	375	130.0	6253	
#9 (S)	16-18		48.1	7.80	375	130.0	6253	
#5 HOLD TK. ℄	18½-20		329.1	9.00	2962	166.0	54631	
SUB TOTAL			463.9		4013		70765	

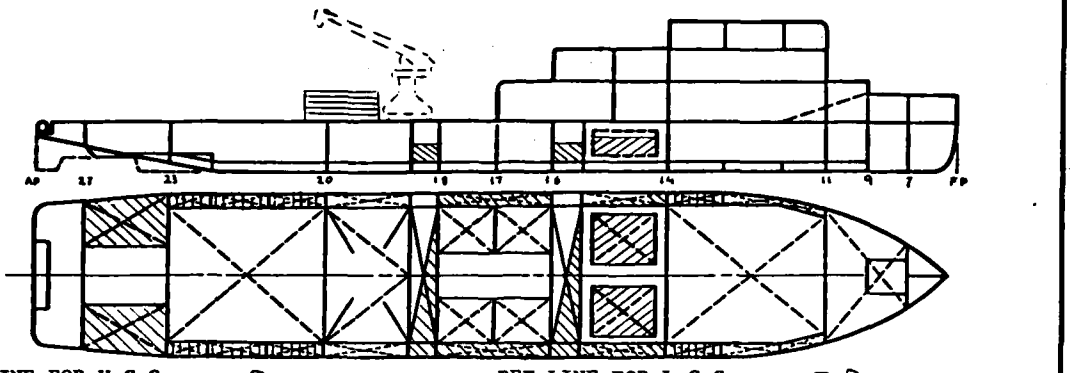


SYMBOLS
=S.W.
=F.W.
=OIL CARGO
=BULK CARGO
=DRY CARGO
=F.O OR D.O

TRIM & STABILITY SUMMARY

CONDITION OF VESSEL: OPERATING 1A | DATE: 3-3-80 | PAGE: 15

CARGO ____ % CONSUMABLES 66 % BALLAST ____ | BY: ____ | JOB NO. ____



REF LINE FOR V.C.G. B.L. REF LINE FOR L.C.G. F.P.

SYMBOL	COMPARTMENT	CU FT TON	WEIGHT TONS	V.C.G. ADV. B.L. FT.	MOMENT ADV. BL FT TONS	LCG ABT. FP FT	MOMENT ABT. FP FT TONS	VERT. MOM OF F.S. FT TONS
	CREW & EFFECTS		6.0	24.00	144	62.0	372	
	STORES		45.0	20.00	900	26.00	1170	
	FUEL OIL		147.2	7.51	1104	164.8	24262	15
	FRESH WATER		75.0	7.00	526	94.0	7050	282
	DECK LOAD		1000	19.00	1900	176.5	17650	
	SLUDGE		19.3	4.35	84	94.0	1814	4
	SW. BALLAST		301.4	9.01	2717	181.8	54802	
DEADWEIGHT			6939		7375		107120	301
LIGHT SHIP			1459	14.70	21447	125.44	183017	4096
DISPLACEMENT			2128	13.37	28780	134.77	290106	4397

TRIM

DRAFT AT LCF	= 7.93	FT
MOMENT TO ALTER TRIM 1"	= 464.9	FT-TS
LCB AFT OF FP	= 128.56	FT
LCG AFT OF FP	= 134.77	FT
TRIMMING LEVER	= 6.21	FT
TRIM (BY STERN, ~~HEAD~~)	= 2.40	FT
LCF AFT OF FP	= 134.91	FT

DRAFT AT FP = 6.68 AP = 9.08

DRAFTS AT DRAFT MARKS

FWD ____ AFT ____

MEAN ____

STABILITY

METACENTRE ABOVE BL	$\overline{KM}$ = 30.0	FT
CENTRE OF GRAVITY ABV BL	$\overline{KG}$ = 13.37	FT
METACENTRIC HEIGHT	$\overline{GM}$ = 16.63	FT
ALLOWANCE FOR FREE SURFACE	= 2.04	FT
$\overline{GM}$ CORRECTED	= 14.59	FT
$\overline{GM}$ REQUIRED	= ____	FT
MOMENT TO HEEL 1°	= ____	FT-TS

GIANNOTTI & ASSOCIATES, INC.
NAVAL ARCHITECTS
OCEAN ENGINEERS
MARINE ENGINEERS
703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

COMPARTMENT CAPACITIES

CONDITION IA

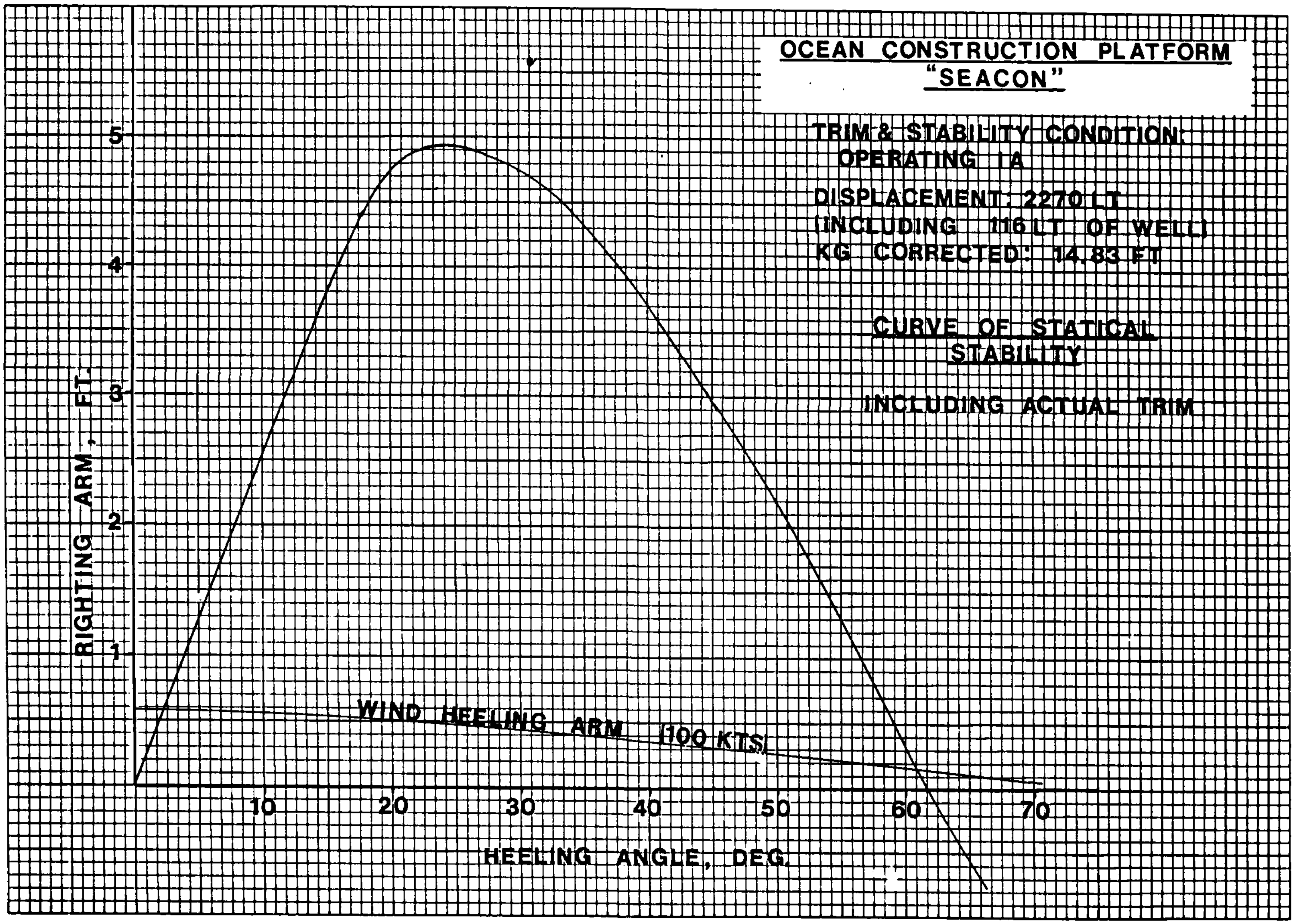
J. J. HENRY CO. INC.

DATE 4-2-75 PAGE 16

BY PAO JOB NO. 1736

REF. LINE FOR V.C.G. B.L. REF. LINE FOR L.C.G. F.P

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ABV. B.L. FT.	MOMENT ABV. BL. FT. TONS	L.C.G. ABT. F.P. FT.	MOMENT ABT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (65%)								
#5 WING TK (S)	13-14		21.0	7.64	160	74.0	1554	2
#6 (P)	↓		↓	↓	↓	↓	↓	↓
#13 (S)	20-21		↓	↓	↓	186.0	3906	↓
#14 (P)	↓		12.8	6.82	80	188.6	2414	1
#15 (S)	21-22		21.0	7.60	160	202.0	4242	2
#16 (P)	↓		↓	↓	↓	↓	↓	↓
#17 (S)	22-23		14.7	7.64	112	216.0	3175	↓
#18 (P)	↓		↓	↓	↓	↓	↓	↓
SUB TOTAL			147.2	7.51	1104	169.8	24262	15
FRESH WATER (66%)								
F.W. TK (S)	5		37.5	7.00	263	94.0	3525	141
(P)	↓		↓	↓	↓	↓	↓	↓
SUB TOTAL			75.0	7.00	526	94.0	7050	282
S.W BALLAST								
#7 WING TK (S)	14-15½		38.6	7.81	301	94.0	3628	
#8 WING TK (P)	16-18		43.1	7.81	375	130.0	6253	
#9 ↓ (S)	↓		↓	↓	↓	↓	↓	
#6 HOLD TK (P)	23-27		83.3	10.00	833	232.1	19334	
#7 ↓ (S)	↓		↓	↓	↓	↓	↓	
SUB TOTAL			301.4	9.01	2717	181.8	54802	
SLUDGE TK (50%)	14-15½		19.3	4.35	84	94.0	1814	4

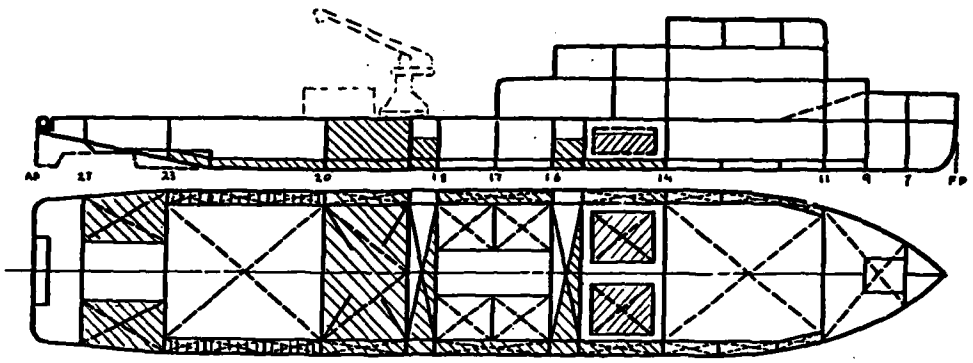

OCEAN CONSTRUCTION PLATFORM
"SEACON"
TRIM & STABILITY CONDITION:
OPERATING 1A
DISPLACEMENT: 2270 LT
(INCLUDING 116 LT OF WELL)
KG CORRECTED: 14.83 FT
CURVE OF STATICAL
STABILITY
INCLUDING ACTUAL TRIM
RIGHTING ARM, FT.
1
2
3
4
5
WIND HEELING ARM (100 KTS)
10
20
30
40
50
60
70
HEELING ANGLE, DEG.

SYMBOLS =S.W. =F.W. =OIL CARGO =BULK CARGO =DRY CARGO =F.O OR D.O

TRIM & STABILITY SUMMARY

CONDITION OF VESSEL: OPERATING II A | DATE: 3-3-80 | PAGE: 18

CARGO ____ % CONSUMABLES 66 % BALLAST ____ | BY: ____ | JOB NO. ____



REF LINE FOR V.C.G. B.L. REF LINE FOR L.C.G. F.P.

SYMBOL	COMPARTMENT	CU FT TON	WEIGHT TONS	V.C.G. ADV. B.L. FT.	MOMENT ADV. BL FT TONS	LCG ABT. FP FT	MOMENT ABT. EP FT TONS	VERT. MOM OF F.S. FT TONS
	CREW & EFFECTS		6	24.00	144	62.0	372	
	STORES		45	20.00	900	26.1	1170	
	FUEL OIL		105.2	7.45	784	201.1	21154	11
	FRESH WATER		75	7.00	526	94.0	7050	282
	SLUDGE		19.3	4.35	84	94.0	1814	4
	S.W. BALLAST		1080.3	6.43	6941	164.57	1777.84	
	CRANE AT FR 22						3070	
	DEADWEIGHT		1330.8		9379		212414	297
	LIGHT SHIP		1459	14.70	21447	125.44	183017	4096
	DISPLACEMENT		2789.8	11.03	30771	141.78	395538	4393

TRIM

DRAFT AT LCF	=	9.98	FT
MOMENT TO ALTER TRIM 1"	=	506.4	FT-TS
LCB AFT OF FP	=	130.34	FT
LCG AFT OF FP	=	141.78	FT
TRIMMING LEVER	=	11.44	FT
TRIM (BY STERN, ~~HEAD~~)	=	5.25	FT
LCF AFT OF FP	=	137.01	FT

DRAFT AT FP = 7.22 AP # 12.47

DRAFTS AT DRAFT MARKS

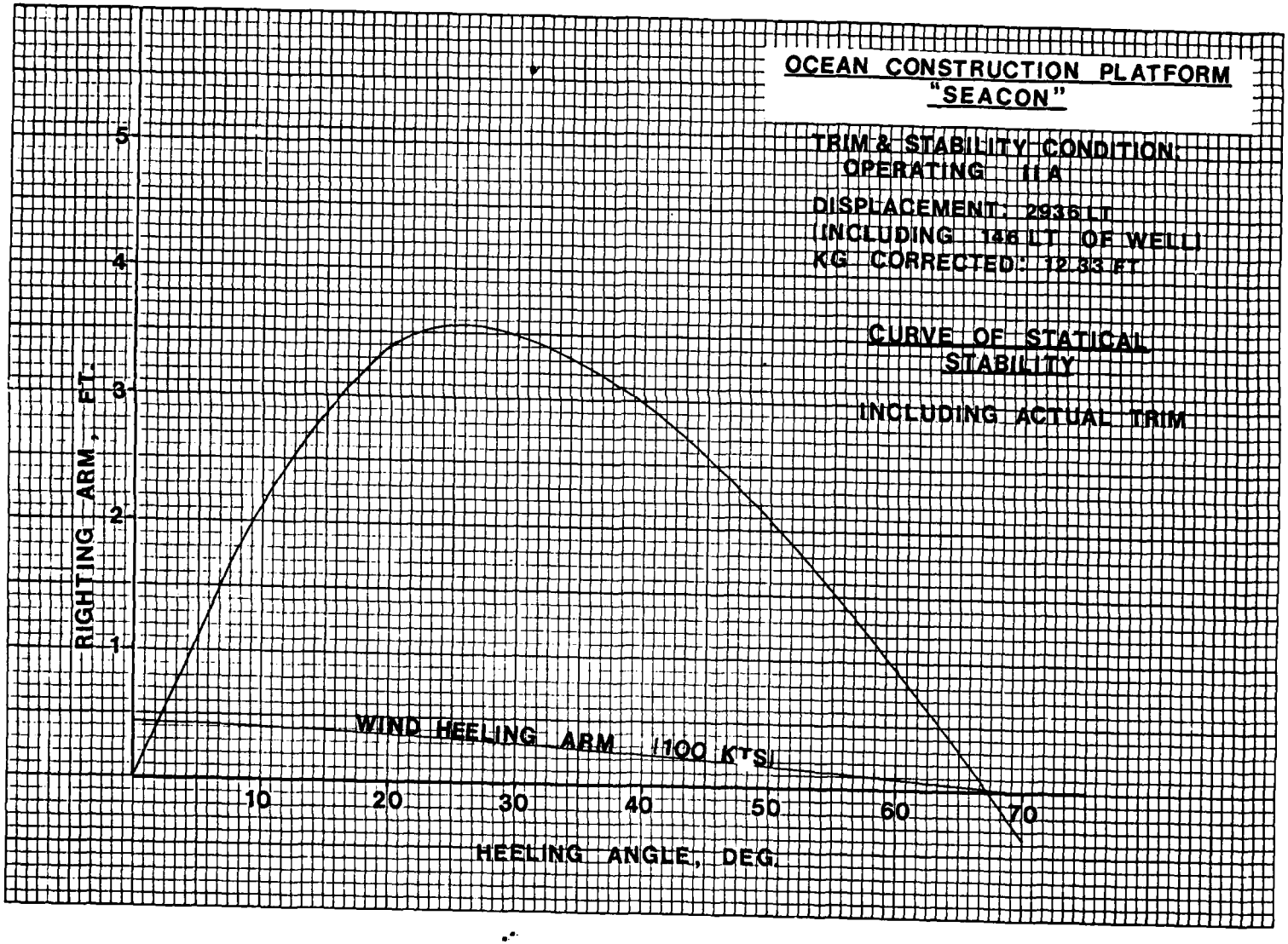
FWD ____ AFT ____

MEAN ____

STABILITY

METACENTRE ABOVE BL	$\overline{KM}$=	25.70	FT
CENTRE OF GRAVITY ABV BL	$\overline{KG}$=	11.03	FT
METACENTRIC HEIGHT	$\overline{GM}$=	14.67	FT
ALLOWANCE FOR FREE SURFACE	=	1.58	FT
$\overline{GM}$ CORRECTED	=	13.09	FT
$\overline{GM}$ REQUIRED	=	____	FT
MOMENT TO HEEL 1°	=	____	FT-TS

GIANNOTTI & ASSOCIATES, INC.
NAVAL ARCHITECTS
OCEAN ENGINEERS
MARINE ENGINEERS
703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

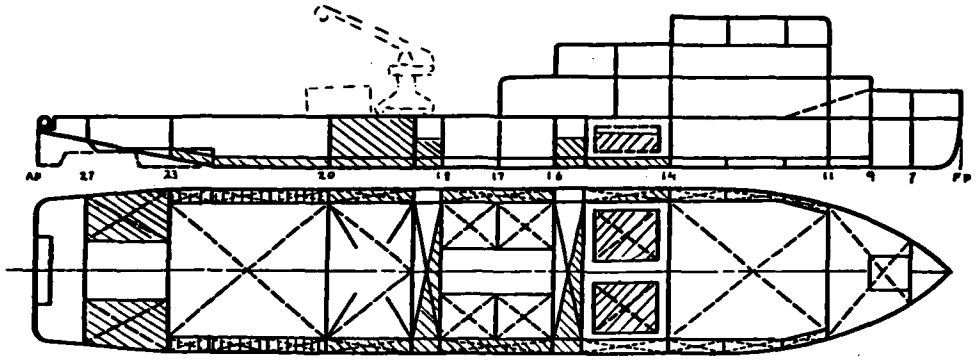

OCEAN CONSTRUCTION PLATFORM
"SEACON"
TRIM & STABILITY CONDITION:
OPERATING IIA
DISPLACEMENT: 2936 LT
(INCLUDING 146 LT OF WELL)
KG CORRECTED: 12.33 FT
CURVE OF STATICAL STABILITY
INCLUDING ACTUAL TRIM
RIGHTING ARM, FT.
1
2
3
4
5
WIND HEELING ARM (100 KTS)
10
20
30
40
50
60
70
HEELING ANGLE, DEG.

SYMBOLS =S.W. =F.W. = =OIL CARGO =BULK CARGO =DRY CARGO =F.O OR D.O

TRIM & STABILITY SUMMARY

CONDITION OF VESSEL: OPERATING COND III A | DATE: 3-3-80 | PAGE: 20

CARGO ____ % CONSUMABLES 66 % BALLAST ____ | BY: ____ | JOB NO. ____



REF LINE FOR V.C.G. B.L. REF LINE FOR L.C.G. F.P.

SYMBOL	COMPARTMENT	CU FT TON	WEIGHT TONS	V.C.G. ADV. B.L. FT.	MOMENT ADV. BL FT TONS	LCG ABT. FP FT	MOMENT ABT. FP FT TONS	VERT. MOM OF F.S. FT TONS
	CREW & STORES		6	24.0	144	62.0	372	
	STORES		45	20.0	900	26.1	1170	
	FUEL OIL		105.2	7.45	784	201.1	21154	11
	FRESH WATER		75	7.00	526	94.0	7050	282
	SLUDGE TK.		19.3	4.35	84	94.0	1814	4
	S.W. BALLAST		1080.3	6.43	6941	164.57	177784	
	BUOY		200	21.00	4200	222.0	44400	
DEADWEIGHT			1530.8		13579		253744	297
LIGHT SHIP			1459	14.70	21447	125.44	188017	4096
DISPLACEMENT			2989.5	11.70	34977	146.09	436736	4393

TRIM

DRAFT AT LCF	= 10.63	FT
MOMENT TO ALTER TRIM 1"	= 510.02	FT-TS
LCB AFT OF FP	= 130.78	FT
LCG AFT OF FP	= 146.09	FT
TRIMMING LEVER	= 15.31	FT
TRIM (BY STERN, [illegible])	= 7.48	FT
LCF AFT OF FP	= 137.05	FT

DRAFT AT FP = 6.69 AP = 14.18

DRAFTS AT DRAFT MARKS

FWD ____ AFT ____

MEAN ____

STABILITY

METACENTRE ABOVE BL	$\overline{KM}$ = 24.8	FT
CENTRE OF GRAVITY ABV BL	$\overline{KG}$ = 11.70	FT
METACENTRIC HEIGHT	$\overline{GM}$ = 13.10	FT
ALLOWANCE FOR FREE SURFACE	= 1.47	FT
$\overline{GM}$ CORRECTED	= 11.63	FT
$\overline{GM}$ REQUIRED	= ____	FT
MOMENT TO HEEL 1°	= ____	FT-TS

GIANNOTTI & ASSOCIATES, INC.
NAVAL ARCHITECTS
OCEAN ENGINEERS
MARINE ENGINEERS
703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

OPERATING COND. IIA, IIIA

COMPARTMENT CAPACITIES

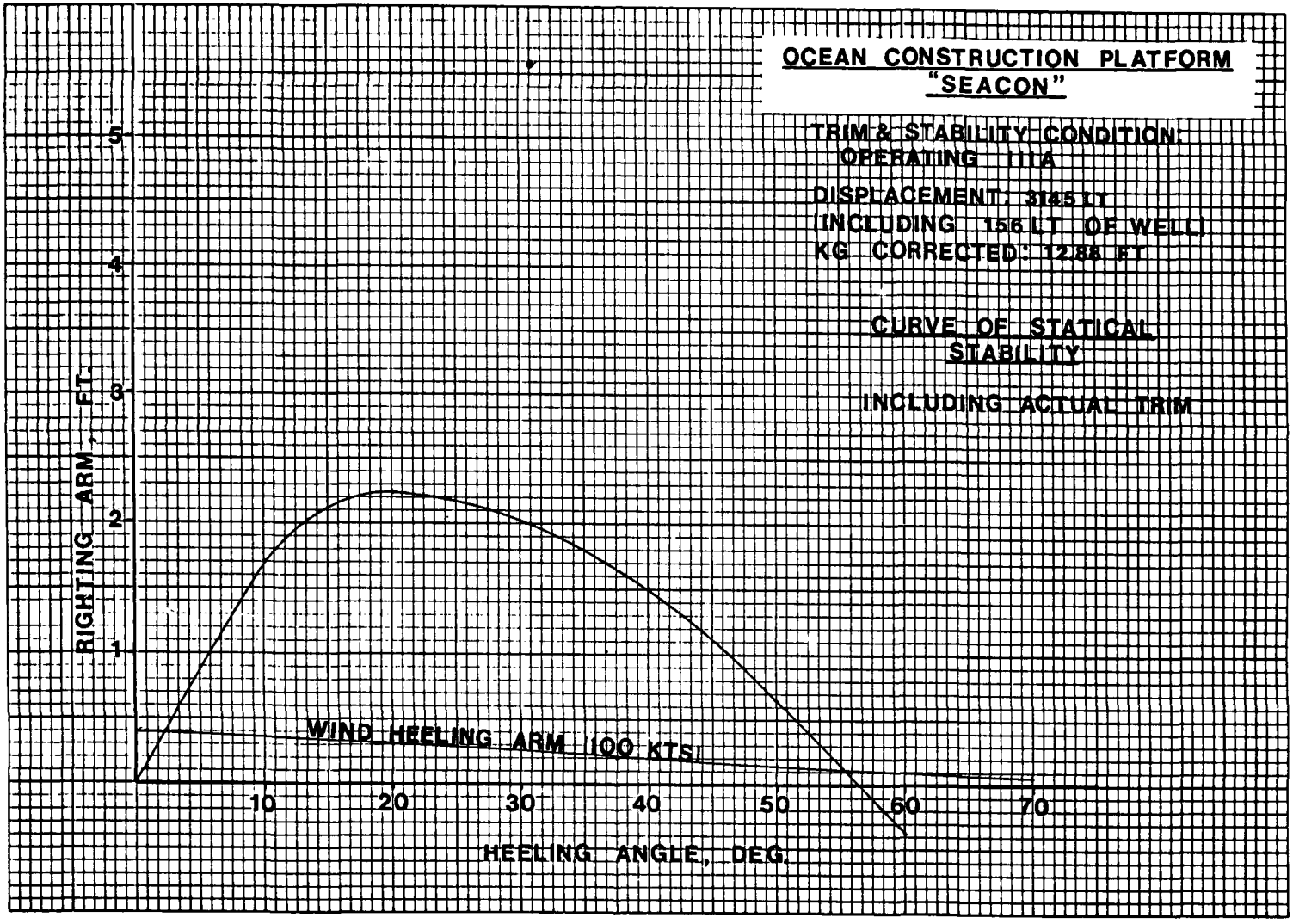
J. J. HENRY CO. INC.

DATE 4-2-25 PAGE 7.1

BY PAD JOB NO. 1136

REF. LINE FOR V.C.G. REF. LINE FOR L.C.G.

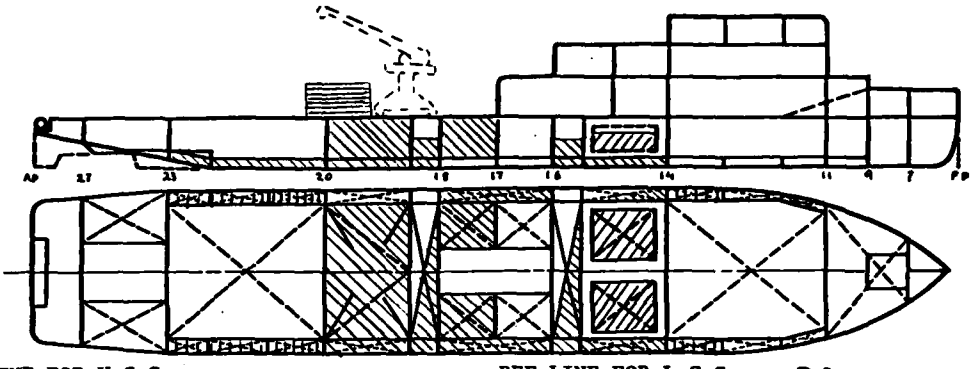
COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ADV. D.L. FT.	MOMENT ADV. D.L. FT. TONS	L.C.G. ABT. F.P. FT.	MOMENT ABT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (98%)								
#13 WING TK (S)	20-21		21.0	7.64	160	186.0	3906	2
#14 " (P)	"		12.8	6.28	80	188.6	2414	1
#15 " (S)	21-22		21.0	7.60	160	202.0	4242	2
#16 " (P)	"		"	"	"	"	"	"
#17 " (S)	22-23		14.7	7.64	112	216.0	3175	"
#18 " (P)	"		"	"	"	"	"	"
SUB TOTAL			105.2	7.45	784	201.1	21154	11
FRESH WATER TK (66%)								
F. W TK (S)	15		37.5	7.00	263	94.0	3525	141
" (P)	"		"	"	"	"	"	"
SUB TOTAL			75	7.00	526	94.0	7050	282
SLUDGE TK (50%)	14-15½		19.3	4.35	84	94.0	1814	4
S.W. BALLAST TK.								
#3 DB TK	14-17		136.6	1.50	205	103.4	14124	
#4 "	17-20		"	"	"	156.6	21392	
#5 "	20-23		99.4	2.51	250	201.4	20019	
#7 WING TK (S)	14-15½		38.6	7.80	301	94.0	3625	
#8 " (P)	16-18		49.1	"	375	130.0	6253	
#9 " (S)	"		"	"	"	"	"	
#10 " (P)	18½-20		38.6	"	301	166.0	6408	
#11 " (S)	"		"	"	"	"	"	
#5 HOLD TK (C)	18½-20		329.1	9.00	2962	166.0	54631	
#6 " (P)	23-27		83.3	10.00	833	232.1	19334	
#7 " (S)	"		"	"	"	"	"	
SUB TOTAL			1082.3	643	6941	164.57	177784	


OCEAN CONSTRUCTION PLATFORM
"SEACON"
TRIM & STABILITY CONDITION:
OPERATING 111A
DISPLACEMENT: 3145 LT
(INCLUDING 156 LT OF WELL)
KG CORRECTED: 12.88 FT
CURVE OF STATICAL STABILITY
INCLUDING ACTUAL TRIM
RIGHTING ARM, FT.
5
4
3
2
1
WIND HEELING ARM (100 KTS)
10
20
30
40
50
60
70
HEELING ANGLE, DEG.

SYMBOLS =S.W. =F.W. = =OIL CARGO =BULK CARGO =DRY CARGO =F.O OR D.O.

TRIM & STABILITY SUMMARY

CONDITION OF VESSEL: OPERATING LB		DATE: 3-3-80	PAGE: 23
CARGO ____ % CONSUMABLES 66 % BALLAST ____		BY:	JOB NO.



REF LINE FOR V.C.G. B.L. REF LINE FOR L.C.G. F.P

SYMBOL	COMPARTMENT	CU FT TON	WEIGHT TONS	V.C.G. ADV. B.L. FT.	MOMENT ADV. BL FT TONS	LCG ABT. FP FT	MOMENT ABT. FP FT TONS	VERT. MOM OF F.S. FT TONS
	CREW & EFFECTS		6	24.00	144	62.0	372	
	STORES		45	20.00	900	26.0	1170	
	FUEL OIL		147	7.51	1104	164.8	24262	15
	FRESH WATER		75	7.00	526	94.0	7050	282
	SLUDGE		19	4.35	84	94.0	1814	4
	DECK LOAD		100	19.00	1900	176.5	17650	
	S.W. BALLAST		966	6.04	5835	149.3	144102	
	DEADWEIGHT		1358		10493		196420	301
	LIGHT SHIP		1459	14.70	21447	125.44	188017	4096
	DISPLACEMENT		2817	11.32	31888	134.71	379478	4397

TRIM

DRAFT AT LCF	= 10.08	FT
MOMENT TO ALTER TRIM 1"	= 507.1	FT-TS
LCB AFT OF FP	= 130.4	FT
LCG AFT OF FP	= 134.71	FT
TRIMMING LEVER	= 4.31	FT
TRIM (BY STERN, ~~HEAD~~)	= 2.00	FT
LCF AFT OF FP	= 137.03	FT

DRAFT AT FP = 9.03 AP = 11.03

DRAFTS AT DRAFT MARKS

FWD _____ AFT _____

MEAN _____

STABILITY

METACENTRE ABOVE BL	$\overline{KM}$ = 25.6	FT
CENTRE OF GRAVITY ABV BL	$\overline{KG}$ = 11.32	FT
METACENTRIC HEIGHT	$\overline{GM}$ = 14.28	FT
ALLOWANCE FOR FREE SURFACE	= 1.56	FT
$\overline{GM}$ CORRECTED	= 12.72	FT
$\overline{GM}$ REQUIRED	= _____	FT
MOMENT TO HEEL 1°	= _____	FT-TS

GIANNOTTI & ASSOCIATES, INC.
NAVAL ARCHITECTS
OCEAN ENGINEERS
MARINE ENGINEERS
703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

COMPARTMENT CAPACITIES I B

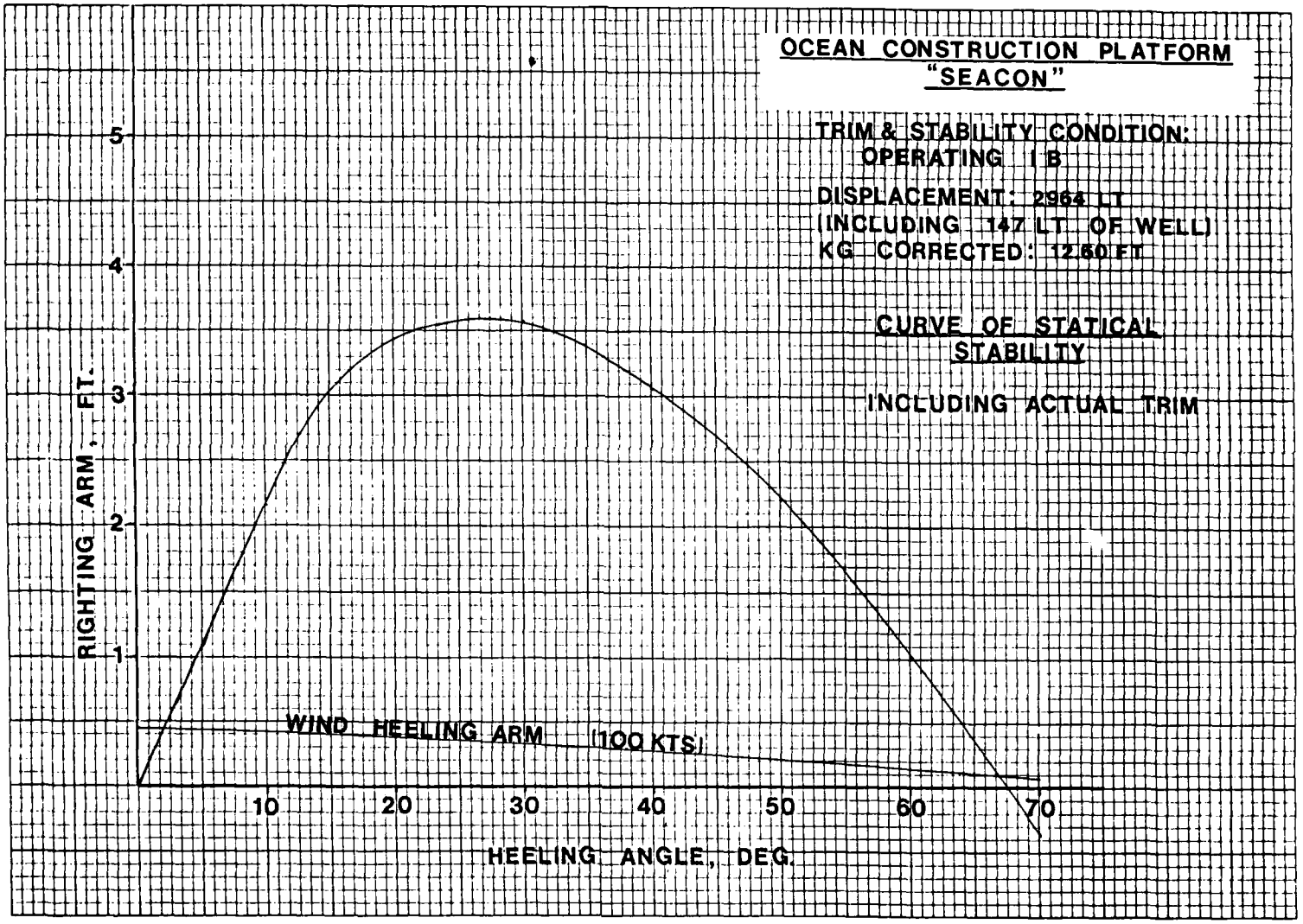
J. J. HENRY CO. INC.

DATE 4-2-75 PAGE 24

BY J.P.G JOB NO 1755

REF. LINE FOR V.C.G. B.L. REF. LINE FOR L.C.G. F.P.

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ABV. B.L. FT.	MOMENT ABV. B.L. FT. TONS	L.C.G. ABT. F.P. FT.	MOMENT ABT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (65%)								
#5 WING TK (S)	13-14		21.0	7.64	160	74.0	1554	2
#6 (P)	13-14		21.0	7.64	160	74.0	1554	2
#13 (S)	20-21		21.0	7.64	160	186.0	3906	2
#14 (P)	20-21		12.8	6.28	80	189.6	2414	1
#15 (S)	21-22		21.0	7.60	160	202.0	4242	2
#16 (P)	21-22		21.0	7.60	160	202.0	4242	2
#17 (S)	22-23		14.7	7.64	112	216.0	3175	2
#18 (P)	22-23		14.7	7.64	112	216.0	3175	2
SUB TOTAL			141.7	7.51	1104	164.8	24262	15
FRESH WATER (66%)								
F.W. TK (P)	15		37.5	7.00	263	94.0	3525	141
" " (S)	15		37.5	7.00	263	94.0	3525	141
SUB TOTAL			75.0	7.00	526	94.0	7050	282
SLUDGE TK (50% YP)	14-15½		19.3	4.35	84	94.0	1814	4
S.W. BALLAST								
#3 D.B. TK.	14-17		136.6	1.50	205	103.4	14124	
#4	17-20		136.6	1.50	205	156.6	21392	
#5	20-23		99.4	2.31	250	201.4	20019	
#7 WING TK. (S)	14-15½		38.6	7.80	301	94.0	3629	
#8 (P)	16-18		48.1	7.80	375	130.0	6253	
#9 (S)	16-18		48.1	7.80	375	130.0	6253	
#3 HOLD TK (S)	17-18		64.5	9.00	581	138.0	8901	
#4 (P)	17-18		64.5	9.00	581	138.0	8901	
#5 (C)	18½-20		329.1	9.00	2962	166.0	54631	
SUB TOTAL			965.5	6.04	5835	149.25	144102	

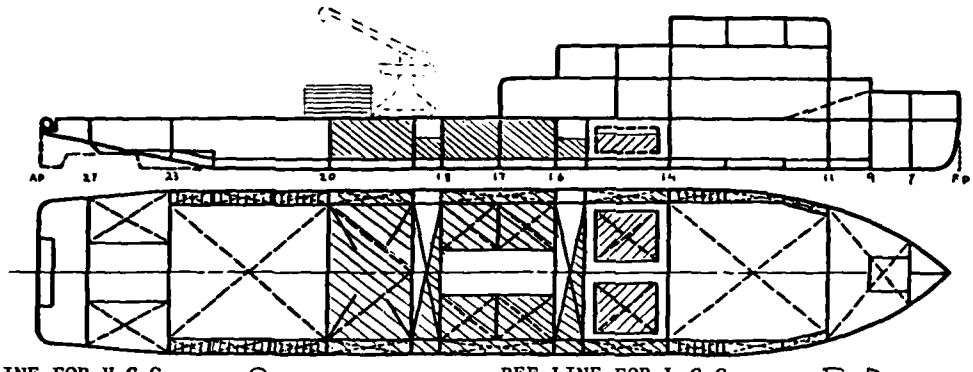

OCEAN CONSTRUCTION PLATFORM
"SEACON"
TRIM & STABILITY CONDITION:
OPERATING I B
DISPLACEMENT: 2964 LT
(INCLUDING 147 LT OF WELL)
KG CORRECTED: 12.60 FT
CURVE OF STATICAL STABILITY
INCLUDING ACTUAL TRIM
RIGHTING ARM, FT.
1
2
3
4
5
WIND HEELING ARM (100 KTS)
10
20
30
40
50
60
70
HEELING ANGLE, DEG.

SYMBOLS =S.W. =F.W. =OIL CARGO =BULK CARGO =DRY CARGO =F.O OR D.O.

TRIM & STABILITY SUMMARY

CONDITION OF VESSEL: OPERATING COND IC | DATE: 3-3 80 | PAGE: 26

CARGO ____ % CONSUMABLES 66 % BALLAST ____ | BY: ____ | JOB NO. ____



REF LINE FOR V.C.G. BL REF LINE FOR L.C.G. F.P

SYMBOL	COMPARTMENT	CU FT TON	WEIGHT TONS	V.C.G. ADV. BL FT.	MOMENT ADV. BL FT TONS	LCG ABT. FP FT	MOMENT ABT. EP FT TONS	VERT. MOM OF F.S. FT TONS
	CREW & EFFECTS		6	24.00	144	62.0	372	
	STORES		45	20.00	900	26.0	1170	
	FUEL OIL		147	7.51	1104	164.8	24262	15
	FRESH WATER		75	7.00	526	94.0	7050	282
	SLUDGE		19	4.35	84	94.0	1814	4
	DECK LOAD		100	19.00	1900	176.5	17650	
	S.W. BALLAST		799	8.68	6939	146.6	117121	
	DEADWEIGHT		1191		11597		169439	301
	LIGHT SHIP		1459	14.70	21447	125.44	188017	4096
	DISPLACEMENT		2650	12.46	33019	133.01	352477	4397

TRIM

DRAFT AT LCF	=	9.54	FT
MOMENT TO ALTER TRIM 1"	=	501.6	FT-TS
LCB AFT OF FP	=	130.0	FT
LCG AFT OF FP	=	133.01	FT
TRIMMING LEVER	=	3.01	FT
TRIM (BY STERN, ~~HEAD~~)	=	1.33	FT
LCF AFT OF FP	=	136.86	FT

DRAFT AT FP = 8.84 AP # 10.17

DRAFTS AT DRAFT MARKS

FWD _____ AFT _____

MEAN _____

STABILITY

METACENTRE ABOVE BL	$\overline{KM}$ =	26.5	FT
CENTRE OF GRAVITY ABV BL	$\overline{KG}$ =	12.46	FT
METACENTRIC HEIGHT	$\overline{GM}$ =	14.04	FT
ALLOWANCE FOR FREE SURFACE	=	1.66	FT
$\overline{GM}$ CORRECTED	=	12.38	FT
$\overline{GM}$ REQUIRED	=	____	FT
MOMENT TO HEEL 1°	=	____	FT-TS

GIANNOTTI & ASSOCIATES, INC.
NAVAL ARCHITECTS
OCEAN ENGINEERS
MARINE ENGINEERS
703 GIDDINGS AVENUE, SUITE U-3
ANNAPOLIS, MARYLAND 21401

COMPARTMENT CAPACITIES

IC

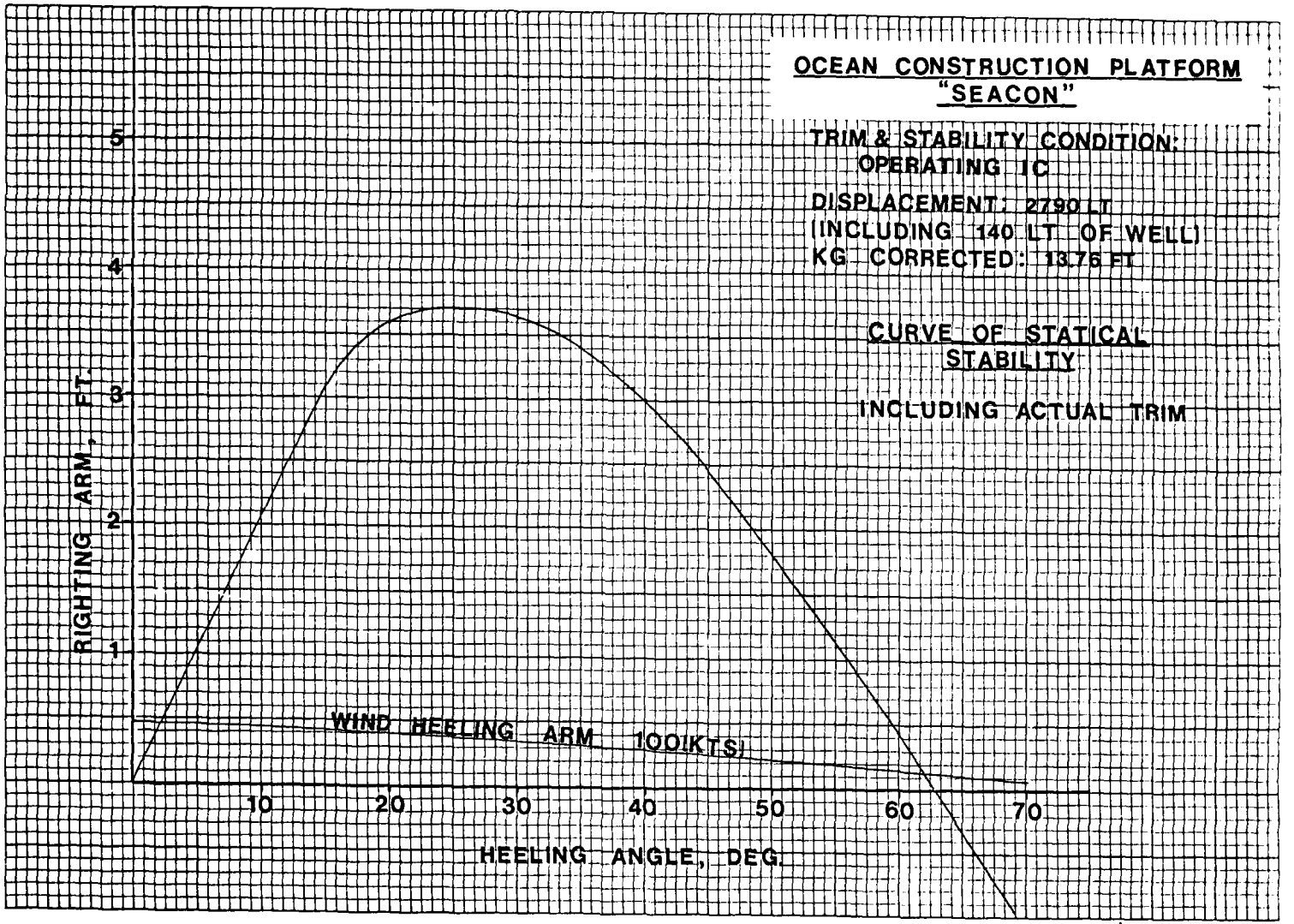
J. J. HENRY CO. INC.

DATE 4-7-75 PAGE 27

BY VEG JOB NO. 1750

REF. LINE FOR V.C.G. B.L. REF. LINE FOR L.C.G. F.P.

COMPARTMENT	FR.	CAP. CU. FT.	WEIGHT TONS	V.C.G. ADV. DL. FT.	MOMENT ADV. DL. FT. TONS	L.C.G. ABT. F.P. FT.	MOMENT ABT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS
FUEL OIL (65%)								
#5 WING TK (S)	13-14		21.0	7.64	160	74.0	1554	2
#6 (P)	13-14		21.0	7.64	160	74.0	1554	2
#13 (S)	20-21		21.0	7.64	160	186.0	3906	2
#14 (P)	20-21		12.8	6.28	80	188.6	2414	1
#15 (S)	21-22		21.0	7.60	160	202.0	4242	2
#16 (P)	21-22		21.0	7.60	160	202.0	4242	2
#17 (S)	22-23		14.7	7.64	112	216.0	3175	2
#18 (P)	22-23		14.7	7.64	112	216.0	3175	2
SUB TOTAL			147.2	7.51	1104	164.8	24262	15
FRESH WATER (66%)								
F.W. TK (P)	15		37.5	7.00	263	94.0	3525	141
" " (S)	15		37.5	7.00	263	94.0	3525	141
SUB TOTAL			75.0	7.00	526	94.0	7050	282
SLUDGE TK 50% (P)	14-15½		19.3	4.35	84	94.0	1814	4
S.W. BALLAST								
#7 WING TK (S)	14-15½		33.6	7.50	301	94.0	3628	
#8 (P)	15-18		43.1	7.30	375	130.0	6253	
#9 (S)	16-18		43.1	7.30	375	130.0	6253	
#10 (P)	18½-20		38.6	7.30	301	166.0	6408	
#11 (S)	18½-20		38.6	7.30	301	166.0	6408	
#1 HOLD TK (S)	16-17		64.5	9.00	581	122.0	7869	
#2 (P)	16-17		64.5	9.00	581	122.0	7869	
#3 (S)	17-18		64.5	9.00	581	138.0	8901	
#4 (P)	17-18		64.5	9.00	581	138.0	8901	
#5 (S)	18½-20		329.1	9.00	2962	166.0	54631	
SUB TOTAL			799.1	8.68	6939	146.57	117121	



APPENDIX

SHIP- OCEAN ENGINEERING PLATFORM SERIAL NUMBER- 0 DATE-04-03-75

INTACT CURVES OF STATICAL STABILITY

DISPL	HEEL	RA	TCB	VCB	DRAFT	TRIM
3639.8	0.000	0.0	0.000	6.374	12.042	1.877
	5.000	.94	1.409	6.435	12.039	1.894
CAPACITY COND.	10.000	1.654	2.601	6.588	12.150	2.273
	15.000	1.87	3.345	6.751	12.572	3.236
	20.000	1.971	3.947	6.941	13.181	4.657
	30.000**	2.029	**********	**********	15.068	7.318
KG = 11.64	40.000	1.944	5.756	7.961	17.073	14.916
	50.000	1.403	6.201	8.401	20.134	23.769
	60.000	.591	6.443	8.743	24.873	37.445
	70.000	-.326	6.577	9.027	33.809	63.186
3542.0	0.000	0.0	0.000	4.588	8.704	0.733
	5.000	1.150	1.983	4.674	8.694	0.692
FULL LOAD	10.000	2.273	3.984	4.938	8.671	0.640
	15.000	3.400	6.000	5.385	8.622	0.515
KG = 14.27	20.000	4.176	7.632	5.895	8.649	0.464
	30.000	4.274	9.492	6.740	8.820	1.254
	40.000	3.49	10.451	7.401	8.806	3.250
	50.000	2.218	*****	*****	*****	*****
	60.000	.589	11.413	8.501	8.069	12.755
	70.000	-1.19	11.604	8.909	7.159	23.983
2270.0	0.000	0.0	0.000	4.175	7.797	2.962
	5.000	1.28	2.214	4.271	7.788	2.924
OPERATING IA	10.000	2.565	4.445	4.565	7.766	2.875
	15.000	3.80	6.665	5.057	7.709	2.764
KG = 14.83	20.000	4.779	8.565	5.651	7.625	2.821
	30.000	4.744	10.485	6.519	7.443	3.862
	40.000	3.68	11.388	7.140	6.999	6.088
	50.000**	2.201	**********	**********	6.343	8.815
	60.000	.356	12.347	8.251	4.589	17.436
	70.000	-1.343	12.552	8.692	1.645	31.371
2935.8	0.000	0.0	0.000	5.340	9.791	5.217
	5.000	1.10	1.726	5.416	9.788	5.232
OPERATING IIA	10.000	2.21	3.454	5.643	9.786	5.325
	15.000	2.86	4.922	5.965	9.901	5.942
KG = 12.33	20.000	3.419	5.974	6.294	10.225	6.994
	30.000	3.481	7.351	6.925	11.185	10.521
	40.000	3.02	8.149	7.476	12.275	16.224
	50.000**	2.068	**********	**********	13.744	23.527
	60.000	.96	8.962	8.407	15.292	39.140
	70.000	-.369	9.122	8.748	18.622	65.794

SHIP= OCEAN ENGINEERING-PLATFORM SERIAL NUMBER= 0 DATE=04-03-75

INTACT CURVES OF STATICAL STABILITY

DISPL	HEEL	RA	TCB	VCB	DRAFT	TRIM
3145.5	0.000	0.0	0.000	5.818	10.350	8.147
	5.000	.87	1.582	5.887	10.358	8.238
OPERATING IIA	10.000	1.714	2.972	6.068	10.463	8.913
	15.000	2.11	4.063	6.307	10.752	10.216
KG = 12.88	20.000	2.266	4.853	6.555	11.249	11.933
	30.000	2.038	5.929	7.050	12.598	16.977
	40.000	1.506	6.601	7.514	14.242	24.788
	50.000	.652	*****	*****	*****	*****
	60.000	-.395	7.319	8.339	19.312	56.207
	70.000	-1.547	7.462	8.647	25.019	92.961
2964.0	0.000	0.0	0.000	5.303	9.953	2.588
	5.000	1.10	1.716	5.378	9.949	2.600
OPERATING IB	10.000	2.158	3.454	5.607	9.936	2.622
	15.000	3.02	5.007	5.948	10.001	2.911
KG = 12.60	20.000	3.448	6.102	6.291	10.291	3.589
	30.000	3.581	7.590	6.972	11.182	6.186
	40.000	3.173	8.477	7.586	12.160	10.666
	50.000	2.222	*****	*****	*****	*****
	60.000	1.029	9.318	8.544	14.955	28.214
	70.000	-.357	9.481	8.892	18.083	48.501
2790.0	0.000	0.0	0.000	5.007	9.433	1.928
	5.000	1.05	1.821	5.087	9.429	1.931
OPERATING IC	10.000	2.109	3.659	5.329	9.412	1.926
	15.000	3.10	5.448	5.724	9.410	1.991
	20.000	3.598	6.746	6.130	9.595	2.377
	30.000	3.643	8.390	6.880	10.208	4.300
KG = 1376	40.000	3.004	9.302	7.510	10.784	7.807
	50.000	1.792	*****	*****	*****	*****
	60.000	.434	10.190	8.522	12.130	22.237
	70.000	-1.154	10.364	8.892	13.602	39.024

DISPLACEMENTS AND CENTERS CORRECTED FOR WELL

	DISPL.	VCG	V.M.T.	L.C.G.	L.M.T.	F.S.
CAPACITY COND.						
	3461.8	10.57	36588	133.94	483633	4403
WELL	178	6.08	1082	130.00	23140	312
	3639.8		37670		486773	4715
			4715			
		11.64	42385			
FULL LOAD COND.						
	2414	12.84	30996	129.59	312830	4403
WELL	128	4.39	562	130.00	16640	312
	2542		31558			4715
			4715			
		14.27	36273			
OPERATING COND IA						
	2152.8	13.37	28780	134.77	290106	4096
WELL	116	3.97	460	130.00	15080	312
	2270		29240			4408
			4408			
		14.83	33648			

OPERATING IIA

	2789.8	11.03	30771	141.78	395538	4393
WELL	146	4.99	729	130.00	18980	312
	2935.8		31500			4705
			4705			
		12.33	36205			

OPERATING IIIA

	2989.5	11.70	34977	146.09	436736	4393
WELL	156	5.32	830	130.00	20280	312
	3145.5		35807			4703
			4703			
		12.88	40510			

OPERATING IB

	2817	11.32	31888	134.71	379478	4397
WELL	147	5.04	741	130.00	19110	312
	2964		32629			4709
			4709			
		12.60	37338			

OPERATING IC

	2650	12.46	33019	133.01	352477	4397
	140	4.77	668	130.00	18200	312
	2790		33687			4709
			4709			
		13.76	38396			

WIND HEELING ARM

$$HA = \frac{0.004\, V^2 AL \cos^2\theta}{2240\, \Delta}$$

$$= HA_o \cos^2\theta$$

WHERE V WIND SPEED IN KTS
A PROJECTED SAIL AREA
L LEVER ARM FROM HALF DRAFT TO CENTER OF SAIL AREA
θ HEEL ANGLE
HA_o HEELING ARM AT 0°

HA / COND.	HEELING ANGLES							
	HA_o	10°	20°	30°	40°	50°	60°	70°
CAPACITY COND	0.303	0.294	0.268	0.227	0.178	0.125	0.076	0.035
FULL LOAD	0.519	0.503	0.458	0.389	0.305	0.214	0.130	0.061
IA	0.584	0.566	0.516	0.438	0.343	0.241	0.146	0.068
IIA	0.431	0.418	0.381	0.323	0.253	0.178	0.108	0.050
IIIA	0.389	0.377	0.343	0.292	0.228	0.161	0.097	0.046
IB	0.425	0.412	0.375	0.319	0.249	0.176	0.106	0.050
IC	0.462	0.448	0.408	0.347	0.271	0.191	0.116	0.054

BASED ON V=100 KTS

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

"PROMISE"

PAGE 1-20

DATE 4-1-75

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17 ⊠ FWD	MOMENTS	AFT	MOMENTS	REFERRED TO PORT	MOMENTS	ST'BD	MOMENTS
EXISTING LIGHTSHIP	831	17.46	14,509			0.5	416				
TOTAL REMOVALS	-168	26.66	-4470			8.6	-1448				
TOTAL ADDITIONS	614	14.49	8899		1596						
WEIGHT MARGIN	15	14.83	222	4.49	67						
KG MARGIN		0.29									
SUB TOTAL	1292	15.10	19535	4.49	5800						
PASSIVE ANTI-ROLL TANKS	128	6.0	768	—		—					
TOTALS, POUNDS											
TONS	1420	14.30	20303	4.08	5800						

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

USS PROMISE

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY									
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17				REFERRED TO			
				FWD	MOMENTS	AFT	MOMENTS	PORT	MOMENTS	ST'BD	MOMENTS
REMOVALS											
GROUP 100											
SHELL PLATING											
PROPELLER FWD 28 x N.3"	428	—		110.0	33660	—					
PROPELLER AFT 2 x 28 x N.3	857	5.00	4285	—		110.0	94270				
WELL OPENING 16 x 32 x N.3	7834	—		—		—					
SKEG 17' x 6' x 4 x N.3"	4162	2.00	8323			112.0	466144				
" BOTT. P. 20' x 2 x 2 x N.3"	1530	—	—			112.0	171360				
	14811	0.85	12608		—	47.13	698114				
GROUP 101											
LONG'LS 4 x 32' x 12.8"	1638	.5	819	—		—					
" 2 x 5' x 12.8"	128	5.0	640	—		110.0	14080				
CVK 10' x 3' x 16.3"	459	1.5	689	110.0	50490	—					
" 32' x 3' x 16.3"	1469	1.5	2209	—		—					
FLOOR FR 17 16 x 3' x N.3"	734	1.5	1101	—		—					
FLOOR SKEG 4' x 2.5', 3, 2 x N.3"	918	2.0	1836	—		110.0	100980				
	5346	1.38	7388		—	12.08	64570				
GROUP 102											
F.B. ½ 32' x 15' x 12.75"	6120	3.0	18360	—		—					
LONG'LS 32 x 4 x 11"	1408	2.75	3872	—		—					
F.B. ½ 2 x 28' x 12.75"	714	5.00	3570	—		110.0	78540				
	8242	3.13	25802	—		9.53	78540				
GROUP 107											
MAIN DECK 32' x 16' x 12.75"	6528	15.0	97920	—		—					
STIFFRS 32 x 7 x 25"	5600	14.75	82600	—		—					
	12128	14.88	180520	—		—					
GROUP 111											
DECKHOUSE											
SIDES 18 x 8 x 12" x 2	3456	33.0		86.0							
FRONT 8 x 8 x 10"	640	33.0									
BACK 8 x 8 x 10"	640	33.0									
HOUSE TOP 21 x 8 x 11"	1848	37.0									
MISC.	416	34.12									
	7000	34.12	238840	86.0	6020000						
TOTALS, POUNDS											
TONS											

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

USS PROMISE

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17 FWD	MOMENTS	AFT	MOMENTS	REFERRED TO PORT	MOMENTS	ST'BD	MOMENTS
REMOVALS											
GROUP 114											
BHD 17.											
R'G + STIFF. 15 x 16 x 20	4800	7.5		—		—					
LONG'L GO'GRE 8 x 9' x 12.75 x 4	3672	7.5		—		—					
LONG'L STIFF. 8 x 3 x 4 x 11	1056	7.5		—		—					
LONG'L BHD 14 - 5½	8640	9.0	77760	36.0	311040	—					
	18168	8.21	149220	17.12	311040						
GROUP 115											
SHED											
COVER	5700	41.4		—		32.0					
FRAME	144000	41.4									
BHD (PLT. + STIFF.)	56880	20.75									
WEBS.	18000	20.50									
WALKWAY + RAILS	6400	27.50									
TRACKS	8000	21.00									
MISC.	5000	28.00									
	243980		8218840				7807360				
SUMMARY of REMOVALS											
GROUP 100	14811	0.85	12608		—		678114				
101	5346	1.38	7388		—		64570				
102	8292	3.13	25082		—		78540				
107	12122	14.88	180520		—		—				
111	7000	34.12	232840		602000		—				
114	18168		149220		311040		—				
115	243980		8218840		—		7807360				
	309675	28.72	8892498			24.98	7735544				
TOTALS, POUNDS											
TONS											

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
NAVSHIPS 4616A-2 (11-57)

U.S.S. PROWLER

BUDGET BUREAU NO. 45-R281
REPORT-BUSHIPS-9281-6

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY									
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17				REFERRED TO			
				FWD	MOMENTS	AFT	MOMENTS	PORT	MOMENTS	ST'BD	MOMENTS
REMOVALS											
GROUP 300											
2 - 60 KW AC GENERATORS	3000	6.0	18000	80.0	240000	—	—				
60 KW DC GENERATOR	1000	9.0	9000	—	—	95.0	95000				
301 SWITCHBOARD	600	7.0	4200	50.0	30000						
302 POWER DISTRIB. (CABLES)	1000	15.0	15000	80.0	80000						
303 LIGHTING SYST.	1500	26.0	39000	80.0	120000						
TOTALS, POUNDS	7100		85200		375000						
TONS	3.17	12.00	38.04	52.82	167.41						

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
NAVSHIPS 4616A-2 (11-57)

U.S.S. PROMISE

BUDGET BUREAU NO. 65-R261
REPORT-BUSHIPS-9291-8

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY									
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17				REFERRED TO			
				FWD	MOMENTS	AFT	MOMENTS	PORT	MOMENTS	ST'BD	MOMENTS
REMOVALS											
GROUP 400 NAV. EQUIP.	500	30.0		92.0							
RADIO	300	30.0		88.0							
TOTALS, POUNDS	800	30.0		90.50	72400						
TONS	0.36	30.00	10.71	90.50	32.32						

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
NAVSHIPS 4836A-2 (11-57)

U.S.S. PROMISE

BUDGET BUREAU NO. 45-R281
REPORT-BUSHIPS-9291-4

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY									
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17				REFERRED TO			
				FWD	MOMENTS	AFT	MOMENTS	PORT	MOMENTS	ST'BD	MOMENTS
REMOVAL											
GROUP 502											
DEHUMIDIFIED MACHY (2)	2240	17.0	38080	—	—	56.0	125440				
AIR CONDITIONING & HEATING	1500	6.0	9000	88.0	132000	—	—				
505 PLUMBING INSTALL.	2240	17.0	38080	80.0	179200	—	—				
516 MISC PIPING SYST.	10000	13.0	130000	64.0	640000	—	—				
520 MOORING, TOWING, ANCHORS	3500	14.0	49000	120.0	420000						
TOTALS, POUNDS	19480		264160		1,245,760						
TONS	8.70	13.56	117.93	63.94	556.14						

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
NAVSHIPS 4618A-2 (11-57)

U.S.S. PROMISE

BUDGET BUREAU NO. 65-R281
REPORT-BUSHIPS-9281-4.

PAGE 7-20

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY									
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17				REFERRED TO			
				FWD	MOMENTS	AFT	MOMENTS	PORT	MOMENTS	ST'BD	MOMENTS
REMOVALS											
GROUP 600											
LIFE RAFT (14 MEN)	200	28.0		64.0		—	—				
INCL. CARRIER	1000	21.5		47.0		—	—				
↓	100.2	9.0		78.0		—	—				
	1000	9.0		53.0		—	—				
	600	11.0		—		93.0	55800				
DECK COVERING	3000	15.0		80.0		—	—				
" "	200	27.0		80.0	2855000	—	—				
INSULATION	3000	24.0		80.0		—	—				
NON STRUCTURAL BHDS & DOORS	20000	21.0		72.0		—	—				
FURNISHING FOR LIVING SPACES	6000	18.0		72.0		—	—				
SCUTT, WR & MISC	2500	18.0		110.0		—	—				
TOTALS, POUNDS	38500		747100		2799203						
TONS	17.19	19.41	333.53	72.71	1249.64						

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

USS PROMISE

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY									
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17				REFERRED TO			
				FWD	MOMENTS	AFT	MOMENTS	PORT	MOMENTS	ST'BD	MOMENTS
SUMMARY OF REMOVALS											
GROUP 100	138.25		3969.87				3453.37				
200	—										
300	3.17		38.04		167.41						
400	0.36		10.71		32.32						
500	8.70		117.93		556.19						
600	17.19		333.53		1249.64						
TOTALS, POUNDS											
TONS	167.67	26.66	4470.08			8.69	1447.86				

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

USS PROMISE

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17 FWD	MOMENTS	AFT	MOMENTS	REFERRED TO PORT	MOMENTS	ST'BD	MOMENTS
ADDITIONS											
GROUP 100											
SKEG											
BOTT. PLG 14'x2.5"x2"x15.3#	1071	2.50	2677			112.0	119952				
" " (12'x25'-2.56ft²)x15.3#	2876	4.00	11504			111.0	319236				
FLOORS 7.0S x7'x15.3#	750	6.00	4500			112.0	84000				
DOUBLES AT BOTT. 128'x4.5"x2"x2.5"x5#	29376	—	—	—	—	—	—				
" " " 16'x2.5"x2"x21.5"#	2040	—	—	—	—	—	—				
BULWARKS P/S 2x3N"x201'x30#	42210	16.75	707018			20.5'	865302				
	78323	9.27	725699			17.73	1388493				
TONS	34.97		323.97				619.86				
GROUP 102											
INNER BOTT. FR 7-9 10'x12'x15.3#	1836	5.00		110.0							
AFT END BHD FR 9 10'x2'x15.3#	306	4.00		104.0							
SIDE BHDS FRS 7-9 2x12'x2'x15.3#	734	4.00		110.0							
LONG'L BOTT. STIFF. 3x12'x11#	396	5.00		110.0							
VERT. BHD STIFF. 3x2'x11#	66	4.00		104.0							
	3338	4.67	15584	109.33	364948						
TONS	1.49		6.96		162.92						
GROUP 107											
DOUBLES AT HN.DK 64'x3.2'x20.4#	7834	15.0	117504	—		—					
10.1%	3.50		52.46								
TOTALS, POUNDS											
TONS											

COMPUTED BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

PAGE 10-20

"PROMISE"

DATE 2-24-75

DESCRIPTION	WEIGHT (Pounds)	ABOVE BASE	MOMENTS	CENTER OF GRAVITY — REFERRED TO FRAME NO. 17 (⊗) — FWD	MOMENTS	AFT	MOMENTS	REFERRED TO ℄ — PORT	MOMENTS	ST'BD	MOMENTS
ADDITIONS											
GROUP III											
BETWEEN MN DK & 01 LEVEL											
TRANS. BHD FR. 12 13.5'x12'x12#	1944	21.00		80.00						13.25	
FR. 13 13.5'x12'x12#	1944	21.00		64.00						13.25	
8.5'x12'x12#	1224	21.00		64.00				3.50			
FR 15 40'x12'x12#	5760	21.00		32.00				—		—	
01 LEVEL DK											
FR. 12~16 40'x32'x12#	15360	27.00		32.00				—		—	
FR. 16~17 3.5'x16'x13.5#	756	27.00		8.00				18.00			
11.5'x16'x13.5#	2484	27.00		8.00						12.25	
SIDE PLT'NG FR 14~17 (P/S)											
2x48'x12'x13.5#	15552	21.00		24.00				—		—	
BETWEEN 01 & 02 LEVEL											
FWD END BHD 48'x9'x17#	7344	31.5		92.00				—		—	
AFT END BHD 40'x9'x12#	4320	31.5		16.00				—		—	
TRANS. BHD FR. 12 28'x9'x12#	3024	31.5		80.00				—		—	
FR. 13 28'x9'x12#	3024	31.5		64.00				—		—	
FR 14 32'x9'x12#	3456	31.5		48.00				—		—	
FR 15 32'x9'x12#	3456	31.5		32.00				—		—	
02 LEVEL DK											
FR. 11~14 32'x44'x13.5#	19008	36.0		70.00				—		—	
FR 14~16 32'x32'x13.5#	13824	36.0		32.00				—		—	
SIDE PLT'NG FR 11~16 (P/S)											
2x76'x9'x13.5#	18468	31.5		54.00				—		—	
BETWEEN 02 LEVEL & TOP OF HSE											
FWD END BHD 24'x8'x17#	3264	40.0		92.00				—		—	
AFT END BHD 12'x8'x12#	1152	40.0		16.00				—		—	
TRANS. BHD FR. 13 24'x8'x12#	2304	40.0		80.00				—		—	
SIDE PLT'NG (P/S) 2x32'x8'x13.5#	6912	40.0		64.00				—		—	
TOP OF HSE 672 FT² x 13.5#	9072	44.0		73.43				—		—	
PAGE TOTALS, POUNDS	143652		4540907		7271744						69021
TONS	64.13	31.61	2027	50.62	3246					0.48	31

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

PROMISE

PAGE 11-20

DATE 2-25-75

DESCRIPTION ADDITIONS	WEIGHT (Pounds) ~~(Tons)~~	ABOVE BASE	MOMENTS	CENTER OF GRAVITY REFERRED TO FRAME NO. 17 (⊠) FWD	MOMENTS	AFT	MOMENTS	REFERRED TO ℄ PORT	MOMENTS	ST'BD	MOMENTS
GROUP 11C											
LONG'L WT BHD 32'x15'x15.3# (P)	7394	7.50		—		—					
BHD LONG'L STIFF 5x32'x11# (P)	1760	7.50		—		—		7.50			
LONG'L WT BHD 32'x15'x15.3# (S)	7344	7.50		—		—		7.50			
BHD LONG'L STIFF 5x32'x11# (S)	1760	7.50		—		—				7.50	
										7.50	
TRANS BHD FR. 18, 20'x15'x15.3#	4590	7.50				16.00		—		—	
BHD VERT. STIFF 4x15'x11#	660	7.50				16.00		—		—	
NOZZLE (ENTI ROLL TK) 12'x24x26#/FT.	7488	9.00	67392	—		—		—		—	
TRANS. BHD FR. 16, 40'x15'x15.3#	9180	7.50		16.00				—		—	
BHD VERT STIFF 12x15'x11#	1980	7.50		16.00				—		—	
										—	
TRANS. INT BHDS @ 2.5'x15'x15.3#	2295	7.50		—		—		—		—	
TRANSV. BHD 18 24'x12'x 14.3#	4306	9.00		—		16.0		—		—	
STIFF. 8x12'x 11#	1056	9.00		—		16.0		—		—	
F.W. TANK TRANS. BHDS. 4x15'x7.5#	576	8.30		36.00				—		—	
F.W. TANK LONG'L BHD. 4x18'x7.5#	6912	8.30		36.00				—		—	
F.W. TANK TOP & 2x12'x15'x17.3#	6912	12.00		36.00				—		—	
F.W. TANK BOTT. & 2x15'x15'x17.3#	6917	4.50		36.00				—		—	
TRANS BHDS VERT STIFF. 4x5x7.5'x11#	1650	8.30		36.00				—		—	
LONG'L BHD'S 4x6x7.5'x11#	1980	8.30		36.00				—		—	
TANK TOP LONG'L COFF. 2x5x12'x11#	1980	12.00		36.00				—		—	
TANK BOTT LONG'L STIF. 2x5'x11#	1980	4.00		36.00				—		—	
PAGE TOTALS, POUNDS	83819	8.04	674522	14.74	1235661						
TONS	37.43		301.13		551.73			—	—	—	—

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

"PROMISE"

DATE 2-26-75

DESCRIPTION ADDITIONS	WEIGHT (Pounds) Tons	CENTER OF GRAVITY ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17 (⊗) FWD	MOMENTS	AFT	MOMENTS	REFERRED TO ℄ PORT	MOMENTS	ST'BD	MOMENTS
GROUP 122											
CENTER WELL BUTT DOORS 15'x32'x3½"	16800	0.6		—		—		—		—	
CENTER WELL 2K HATCH 15'x32'x2½"	12000	11.3		—		—		—		—	
ROLL-UP DOOR FR16-17 16'x22'x7"	2800	27.0		8.0				4.0			
ROLL-UP DOOR FR.17 13'x5'x7"	2100	21.0		—		—		4.0			
GROUP 122	33700		301380		22400				19600		
GROUP 122	15.04	8.91	135	0.66	10			0.58	9		
114	37.43	8.04	301	14.74	552			—		—	
111	64.13	31.61	2027	50.62	3246					0.48	31
102	1.49	4.67	7	109.33	163			—		—	
100	34.97	9.27	324	—		17.73	620	—		—	
107	3.50	15.00	52	—		—				—	
	218.53		284.6		3251						
WELD (1½% of ST.) 150	3.28	13.02	43	15.33	50						
TOTALS—POUNDS											
GROUP TOTAL TONS	221.85	1302	2889	15.33	3401					0.10	22

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

PAGE 13-20

BARGE "PROMISE"

DATE 4-1-75

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY									
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. ⊠ FWD	MOMENTS	AFT	MOMENTS	REFERRED TO ℄ PORT	MOMENTS	ST'BD	MOMENTS
ADDITIONS											
GROUP 200											
GM-DIESEL PROP UNIT (RV-2)-300 HP	19000	5.5		98							
VS UNITS (2 UNITS) (6-71 GM)	68000	8				99					
VS VERT. AXIS PROP 9'-6" DIA	50000	–		110							
2-VS VERT AXIS PROP 9'11-6" DIA (2)	100000	4				110					
LINE SHAFTS 7"-2" DIA (TWD)	3000	1		104							
COUPLINGS 9" DIA (-)	200	1		104							
BEARINGS 12" DIA (-)	200	1		104							
2-LINE SHAFTS 16'-4" DIA (ATT)	7624	6				105					
COUPLINGS 9" DIA (-)	400	6				105					
BEARINGS 12" DIA (-)	400	6				105					
TOTALS, POUNDS	230824	1.18	964644			39.56	9130920				
TONS	103.05	4.16	430.65			39.56	4076.30				

COMPUTING BY PAO

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

BARGE "PROMISE"

DATE 2-26-75

DESCRIPTION	WEIGHT (Pounds)	CENTER OF GRAVITY: ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. ⌀: FWD	MOMENTS	AFT	MOMENTS	REFERRED TO ⊄: PORT	MOMENTS	STB'D	MOMENTS
ADDITIONS											
GROUP 300											
2-200KW DETROIT DIESEL GEN	144000	6	864000	67	4216000			11	1584000		
EXH. PIPING (") 6" 120 LF	3450	5.5	18975	64	220800			11	37950		
MAIN SWITCH BOARD 5'-4"x7'	67200	28	1881600	22	1478400			—		—	
440/200 TRANSFORMER 100A	105	4	420	64	6720			11	1150		
CABLE:											
T-52 200'	190	9	1710	32	6080			/		/	
T-158 110'	300		2700		9600			/		/	
T-6 [illegible]'	36		234		282			/		/	
T-4 210'	80		720		2560			/		/	
T-70 180'	60		540		1920			/		/	
T-26 [illegible]'	260		2340		8270			/		/	
D-9 [illegible]'	[illegible]		[illegible]		55104			/		/	
D-4 80'	10		90		340			/		/	
[illegible] 350'	70		630		2240			/		/	
[illegible] 180'	430		3870		13760			/		/	
[illegible] 180'	646		5814		20672			/		/	
[illegible] 60'	270		2430		8640			/		/	
[illegible] 40'	288		2592		9216			/		/	
[illegible] 10'	10		90		320			/		/	
SHORE [illegible]	1500	28.5	42750	22	33000			/		/	
LIGHTING [illegible]	1500	28.5	42750	22	33000			/		/	
WIRE WAYS 1000'	2000	9	18000	32	64000			/		/	
TOTALS, POUNDS	224017		[illegible]		11188900				1623700		
TONS	100.01	12.98	1297.70	49.94	4995			7.25	725		

COMPUTING BY DAD

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
NAVSHIPS 4616A-2 (11-57)

U.S.S. PROMISE

BUDGET BUREAU NO. 45-R281
REPORT-BUSHIPS-6281-4

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY									
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17				REFERRED TO			
				FWD	MOMENTS	AFT	MOMENTS	PORT	MOMENTS	ST'BD	MOMENTS
ADDITIONS											
GROUP 400											
WHEEL HOUSE & CHART & RADIO RM	4.0	37.5		86.0							
CONTROL RM.	5.0	29.5		24.0							
TOTALS, POUNDS											
TONS	9.0	33.05	297.50	51.55	464.00						

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

BARGE "PROMISE"

DATE 6-26-75

DESCRIPTION	WEIGHT (Pounds) ~~(Tons)~~	ABOVE BASE	MOMENTS	Referred to Frame No. ⌀ FWD	MOMENTS	AFT	MOMENTS	Referred to ℄ PORT	MOMENTS	STB'D	MOMENTS
"ADDITIONS"											
GROUP 500											
FIRE PUMP	6000	5.0	30000	52	312000					11	66000
2-FRESH PUMP	2000		10000		104000						22000
F.O TRANSFER PUMP	1000		5000		52000						11000
SANITARY PUMP	400		2000		20800						4400
STRIPPING PUMP	3750		18450		195000						41250
SANITARY PRESS TK	1000	6	6000	95	95000			—		11	11000
FRESH WATER " "	1000	9	9000	32	32000			—		—	
STARTING AIR COMPRESSOR	2000	5.0	10000	64	128000					11	22000
2-SUPPLY FANS 2500 CFM (AFT)	1200	47.0	56400	50	60000			—		—	
2- " 4500 CFM (FWD)	3000	29.5	88500	96	288000			—		—	
2- MUSHROOM VENT	800	29.5	23600	96	76800			—		—	
VENT TRUNKS	400	22	8800	95	38000			—		—	
HOT WTR TK	3500	7	24500	64	224000			—		11	38500
2- 30 TON A/C	1600	18	28800	62	99250			—		—	
1- 5 TON A/C	800	39	31200	23	18400			—		—	
SANITARY UNIT	800	4.5	3600	12	9600			—		—	
[illegible]	800		3600		9600			—		—	
VENTING	800		3600		9600			—			
	[illegible]		[illegible]		[illegible]						71650
TOTALS, POUNDS											
TONS	12.97	12.44	161.41	60.86	789.84					[illegible]	[illegible]

COMPUTING BY: PAD

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
NAVSHIPS 4614A-2 (11-57)

U.S.S. PROMISE

BUDGET BUREAU NO. 45-R281
REPORT-BUSHIPS-0291-4

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY								
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17				REFERRED TO ℄			
				FWD	MOMENTS	AFT	MOMENTS	PORT	MOMENTS	ST'BD	MOMENTS
ADDITIONS											
GROUP 600											
LADDERS (INCL) (3) 01 LEV.	2200	32.0		46.0							
" " 3 MN. DK.	2900	21.0		32.0							
" " 2 HOLD	1950	9.0		—	—	—	—				
VERT. LADDERS 1	100	40.0.		80.0							
NON STRUCT. BHD. 02 LEV.	3500	40.0		59.0							
E2002S 01 LEV.	24000	31.5		64.0							
MN. DK.	52000	21.0		64.0							
PAINTING	5000	26.0		60.0							
DECK COVERING											
MAIN DECK 100'x40'x1.3#	5408	15.00		52.00				—		—	
01 LEVEL 76'x32'x1.3#	3162	27.00		54.00				—		—	
02 LEVEL 672 FT²x1.3#	874	36.00		73.93				—		—	
HULL INSULATION											
MN DK ~ 01 LEVEL 277'x12'x.7#	2327	21.00		51.00				—		—	
01 ~ 02 249'x9'x.7#	1380	21.50		54.00				—		—	
02 ~ TOP 150'x8'x.7#	840	90.00		73.93				—		—	
01 DK 1504 FT²x0.7#	1053	27.00		50.00				—		—	
02 DK 1760 x0.7#	1232	36.00		46.58				—		—	
TOP OF HSE 672 FT²x0.7#	470	44.00		72.43				—		—	
WORK SHOP EQUIPMENT	10000	18.00		16.00				—		—	
EQUIPMENT FOR GALLEY	1800	18.00		110.0				—		—	
MESSROOM	3000	18.00		98.0				3.0			
FURNISHINGS FOR LIVING SPACES											
MN DK	13500	17.50		62.00				—		—	
01 LEVEL	11000	29.50		70.00				—		—	
PAGE TOTALS, POUNDS	147696		3515358		8795781				5000		
TONS	65.94	23.80	1569	59.55	3926			0.06	4		

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
NAVSHIPS 9616A-2 (11-57)

U.S.S. PROMISE

BUDGET BUREAU NO. 46-R281
REPORT-BUSHIPS-9291-5

DATE

DESCRIPTION	WEIGHT (Pounds)	CENTER OF GRAVITY: ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17 (⊗): FWD	MOMENTS	AFT	MOMENTS	REFERRED TO ℄: PORT	MOMENTS	ST'BD	MOMENTS
ADDITIONS											
GROUP 600 (CONT'D)											
FURNISHINGS FOR OFFICES, ETC.											
PROJECT OFFICE	1800	30.0		38.5						9.00	
CHART & RADIO RM	500	39.0		74.0				—		—	
BARGE OFFICE	500	39.0		62.5				1.75			
CONT'L RM	1000	30.00		24.0				—		—	
WHEEL HOUSE	600	39.0		86.0				—		—	
FALSE FLOOR — CONT'L RM. 16'x22'x18"	9216	28.00		24.0				—		—	
PAGE TOTALS, POUNDS	13616		400448		434334						1532.5
TONS	6.08	29.70	181	31.90	194					1.13	7

COMPUTING BY

COMPUTING CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET
NAVSHIPS 4616A-2 (11-57)

U.S.S. PROMISE

BUDGET BUREAU NO. 45-R281
REPORT-BUSHIPS-0291-4

DATE

DESCRIPTION	WEIGHT (Pounds)	CENTER OF GRAVITY									
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO. 17				REFERRED TO			
				FWD	MOMENTS	AFT	MOMENTS	PORT	MOMENTS	ST'BD	MOMENTS
ADDITIONS.											
GROUP 600 (CONT'D)											
CRANE RAIL 600"x108'	64800	16.0		—		70.0					
CRANE	123200	29.0				29.0		—			
STERN ROLLER	25000	13.3				128.3					
PAGE TOTAL, POUNDS	213000		4642.50				1119300				
	95.09	21.80	2072.70			52.55	4997	—		—	
PAGE 6-3	95.09	21.80	2073			52.55	4997	—		—	
6-2	6.08	29.78	181	31.90	194						
6-1	65.94	23.80	1569	19.55	3926			0.06	9	1.13	7
TOTALS, POUNDS											
GROUP TOTAL TONS	167.11	22.89	3823			6.25	877			—	5

COMPUTED BY

COMPUTER CHECKED

ESTIMATE OF WEIGHT FOR SHIPS, WORK SHEET

PAGE 20-20

DATE

DESCRIPTION	WEIGHT (Pounds) (Tons)	CENTER OF GRAVITY									
		ABOVE BASE	MOMENTS	REFERRED TO FRAME NO.				REFERRED TO			
				FWD	MOMENTS	AFT	MOMENTS	PORT	MOMENTS	ST'BD	MOMENTS
SUMMARY OF ADDITIONS											
GROUP 100	221.85	13.02	2889	15.33	3401					0.1	22
200	103.05	4.18	430.65			39.36	4016.3				
300	100.01	12.98	1297.70	49.94	4995			7.25	725		
400	9.00	33.05	297.50	51.55	464						
500	12.97	12.44	161.41	60.86	789.38					7.5	46.5
600	167.11	22.88	3823			5.25	877			—	3
TOTALS, POUNDS											
TONS	613.99	19.99	8899.26	7.65	4696.08			0.98	603.5		

COMPUTING CHECKED

WEIGHT TO [illegible] (Rev. 3-11-75)

SHIP SEACON

REF. LINE FOR VERTICAL CENTERS IS 0 FEET ABOVE / BELOW MOLDED BASELINE

REF. LINE FOR LONGITUDINAL CENTERS IS F.P.

ITEM		WEIGHT Tons	VERTICAL LEVER Feet	VERTICAL MOMENT Ft. tons	FWD LEVER Feet	FWD MOMENT Ft. tons	AFT LEVER Feet	AFT MOMENT Ft. tons
Tank top engine plating		.14	3.0	.42	32.0	4.48		
Cleats		.074	15.5	1.147	138.25	10.23		
Bullwark in way of Cleats		.14	15.83	2.22	141.15	19.76		
Bins		.25	7.0	1.75	2.06	5.15		
Pipe		.03	1.0	.03	36.7	1.1		
Platform		.23	9.0	2.07	23.0	5.29		
Door		.10	13.0	1.3	22.2	2.22		
Day tank		.10	9.0	.90	29.0	2.9		
Door		.10	30.5	3.05	110.0	11.0		
Door		.10	19.0	1.9	127.0	12.7		
False Floor		.57	28.0	15.96	106.0	60.42		
Scuttle		.04	15.0	.6	250.0	10.0		
Posts		.33	32.0	10.6	41.0	13.53		
Engines		4.82	4.5	21.69	228	1098.96		
Chain		8.93	7.0	62.51	9.0	80.37		
Total		16024	7.94	127.2	87.37	1400.0		

WEIGHT TO ADD (See 3-11-75)

SHIP SEACON

REF. LINE FOR VERTICAL CENTERS IS 0 FEET ABOVE / BELOW MOLDED BASELINE

REF. LINE FOR LONGITUDINAL CENTERS IS F.P.

ITEM		WEIGHT Tons	VERTICAL LEVER Feet	VERTICAL MOMENT Ft. tons	FWD LEVER Feet	FWD MOMENT Ft. tons	AFT LEVER Feet	AFT MOMENT Ft. tons
Rails		.52	25.8	13.416	32.0	16.64		
Winch plate & supports		5.60	25.94	145.3	44.04	246.6		
Cable trough		.53	30.3	16.1	26.75	14.18		
Fairleads		.44	27.0	11.88	14.0	6.16		
Frame for anchor		2.25	18	40.5	12.0	27.0		
Fairlead Foundation (bow)		1.8	25.13	4523	14.0	25.2		
Fairlead & Foundation (stern)		2.12	16.0	33.92	260.0	551.2		
Doubler Plating		8.91	15.0	133.65	222.5	1982.5		
Winches		20.54	29.83	612.7	41.0	842.14		
Wire		2.76	30.5	84.18	44	121.44		
Engines 12 V-71		4.40	4.5	19.8	228	1003.2		
Diesel Exhaust trunk		.30	47.0	14.1	66.0	19.8		
Cleats		.20	15.5	3.1	141.15	28.2		
Platform		.23	9.0	2.07	17.0	3.91		
Door		.10	13.0	1.3	15.2	1.52		
Day tank		.26	10.4	2.70	29.0	7.54		
False Floor		.11	28.0	3.08	112.0	12.32		
Door		.10	31.5	3.15	110.0	11.0		

WEIGHT TO ADD (since 3-11-75)

SHIP SEACON

REF. LINE FOR VERTICAL CENTERS IS 0 FEET ABOVE / BELOW MOLDED BASELINE

REF. LINE FOR LONGITUDINAL CENTERS IS F.P.

ITEM		WEIGHT Tons	VERTICAL LEVER Feet	VERTICAL MOMENT Ft. tons	FWD LEVER Feet	FWD MOMENT Ft. tons	AFT LEVER Feet	AFT MOMENT Ft. tons
Relorus Stands		.07	38.0	2.66	44.0	3.08		
Vent		.10	9.0	.9	194.0	19.4		
Spill boxes		.47	16.5	7.76	130.0	161.1		
Walkway		.041	3.0	.12	28.0	1.12		
Misc. Structure		2.84	10.2	28.97	200.2	568.7		
Total		54.69	22.43	1226.7	101.92	5574.0		

TOTAL WEIGHT TO ADD (Sic -- 3-11-71)

SHIP SEACON

REF. LINE FOR VERTICAL CENTERS IS 0 FEET ABOVE / BELOW MOLDED BASELINE

REF. LINE FOR LONGITUDINAL CENTERS IS F.P.

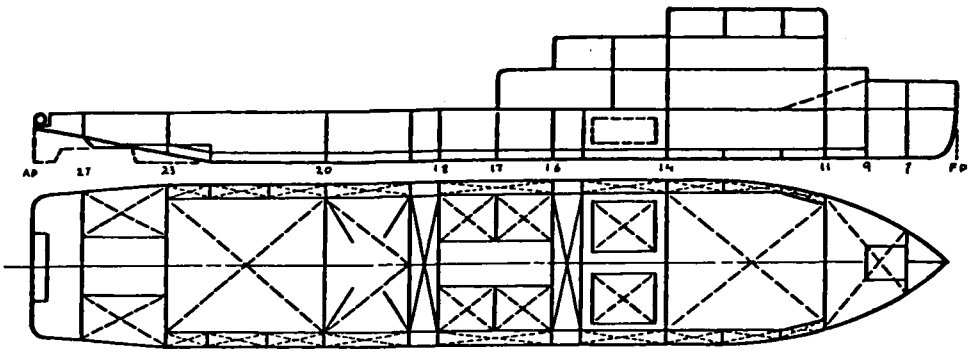
ITEM		WEIGHT Tons	VERTICAL LEVER Feet	VERTICAL MOMENT Ft. tons	FWD LEVER Feet	FWD MOMENT Ft. tons	AFT LEVER Feet	AFT MOMENT Ft. tons
TOTAL WEIGHT TO REMOVE		16.024	7.94	127.2	87.37	1400.0		
TOTAL WEIGHT TO ADD		54.69	22.43	122.67	101.92	5574.0		
TOTAL		38.67	28.43	1099.4	107.94	4174.0		

SYMBOLS =S.W. =F.W. =OIL CARGO =BULK CARGO =DRY CARGO =F.O OR D.O

TRIM & STABILITY SUMMARY

CONDITION OF VESSEL: _____ DATE: _____ PAGE: _____

CARGO _____ % CONSUMABLES _____ % BALLAST _____ BY: _____ JOB NO. _____



REF LINE FOR V.C.G. _____ REF LINE FOR L.C.G. _____

SYMBOL	COMPARTMENT	CU FT TON	WEIGHT TONS	V.C.G. ADV.B.L FT.	MOMENT ADV.BL FT TONS	LCG ABT.FP FT	MOMENT ABT. EP FT TONS	VERT.MOM OF F.S. FT TONS
DEADWEIGHT								
LIGHT SHIP								
DISPLACEMENT								

TRIM

DRAFT AT LCF = _____ FT

MOMENT TO ALTER TRIM 1" = _____ FT-TS

LCB AFT OF FP = _____ FT

LCG AFT OF FP = _____ FT

TRIMMING LEVER = _____ FT

TRIM (BY STERN, HEAD) = _____ FT

LCF AFT OF FP = _____ FT

DRAFT AT FP = _____ AP = _____

DRAFTS AT DRAFT MARKS

FWD _____ AFT _____

MEAN _____

STABILITY

METACENTRE ABOVE BL $\overline{KM}$ = _____ FT

CENTRE OF GRAVITY ABV BL $\overline{KG}$ = _____ FT

METACENTRIC HEIGHT $\overline{GM}$ = _____ FT

ALLOWANCE FOR FREE SURFACE = _____ FT

$\overline{GM}$ CORRECTED = _____ FT

$\overline{GM}$ REQUIRED = _____ FT

MOMENT TO HEEL 1^{o} = _____ FT-TS

GIANNOTTI & ASSOCIATES, INC.

NAVAL ARCHITECTS
OCEAN ENGINEERS
MARINE ENGINEERS

703 GIDDINGS AVENUE SUITE U-3
ANNAPOLIS, MARYLAND 21401

COMPARTMENT CAPACITIES

DATE PAGE

BY JOB NO.

Ref. Line for V.C.G. Ref. Line for L.C.G.

COMPARTMENT	FR.	CAP CU. FT.	WEIGHT TONS	V.C.G. ABV. BL FT.	MOMENT ABV. BL FT. TONS	L.C.G. ABT. F.P. FT.	MOMENT ABT. F.P. FT. TONS	VERT. MOM. OF F.S. FT. TONS

END

DATE
FILMED

6-86