СКОРОСШИВАТЕЛЬ

БМРТ Новатор

ДЕЛО №

Информация об остойчивости

(справочные материалы)

начато

окончено

POS	DESCRIPTION	CONT.	DENSITY t/m	VOLUME m^3	WEIGHT tonnes	LCG	VCG	I MAX m^4	SOUNDIN table n
1	FORECASTLE TK	WB	1.025	102.77	105.34	80.909	12.098	35.9	1
2	FOREPEAK TK	WB	1.025	152.57	156.38	78.462	6.441	202.2	2
3	ROLL REDUCTION TK	WB	1.025	161.96	166.01	74.974	12.009	858.6	3
4	WING TANK I PS	FW	1.000	40.45	40.45	72.541	5.601	16.2	4
5	WING TANK I SB	FW	1.000	40.45	40.45	72.541	5.601	16.2	4
6	HOT BRINE TK	BRINE	1.300	1.16	1.51	71.700	14.371	0.1	-
7	COLD BRINE TK	BRINE	1.300	3.35	4.36	72.875	14.362	0.3	-
8	BOTTOM TK I PS	DIESEL	0.870	82.31	71.61	59.572	0.990	179.7	5
9	BOTTOM TK I SB	DIESEL	0.870	82.31	71.61	59.572	0.990	179.7	5
10	BOTTOM TK II PS 10	H.FO	0.850	70.89	60.26	46.288	1.111	105.0	7
11	BOTTOM TK II C 11	H.FO	0.850	138.10	117.39	46.495	0.915	270.0	6
12	BOTTOM TK II SB 12	H.FO	0.850	70.89	60.26	46.288	1.111	105.0	7
13	BOTTOM TK III PS 13	H.FO	0.850	60.94	51.78	32.622	1.120	92.4	8
14	BOTTOM TK III C 14	H.FO	0.850	124.16	105.54	32.257	0.929	248.4	9
15	BOTTOM TK III SB 15	H.FO	0.850	59.54	50.61	32.809	1.118	89.1	10
35	SEWAGE TK	-	1.000	9.45	9.45	24.605	1.012	21.6	16
18	DIRTY OIL TK	H.FO	0.850	2.85	2.42	23.427	0.932	0.6	14
19	DRAIN TK CLEAN FUEL	H.FO	0.850	2.85	2.42	23.427	0.932	0.6	15
16	WING TK II PS	SLUDGE	1.000	32.83	32.83	16.684	2.872	47.5	13
38	LUB.OIL SYST.TK MAIN ENG.	LO	0.870	11.92	10.37	19.510	1.011	0.8	18
17	LUB.OIL TK I	LO	0.870	17.29	15.04	18.068	2.749	22.4	19
39	LUB.OIL TK II	LO	0.870	6.43	5.59	16.224	2.912	9.4	22
40	LUB.OIL TK III	LO	0.870	4.93	4.29	15.029	3.028	7.7	23
41	LUB.OIL TK IV	LO	0.870	4.19	3.65	13.638	3.137	5.2	24
37	BILGEWATER TK	FW	1.000	10.52	10.52	9.412	0.958	3.9	17
23	SETTLING TK H.FO	H.FO	0.850	25.34	21.54	10.082	5.736	6.7	01
	SERVICE TK H.FO	H.FO	0.850	24.01	20.41	9.993	5.260	2.0	02
22	SERVICE TK DIESEL	DIESEL	0.870	23.42	20.38	9.974	5.657	5.9	21
28P	STERN TK PS	FW	1.000	84.26	84.26	2.883	6.445	93.7	11
29	STERN TK C	FW	1.000	92.30	92.30	2.505	6.137	41.7	12
28S	STERN TK SB	FW	1.000	84.26	84.26	2.883	6.445	93.7	11
24	RSW TK I PS	RSW	1.025	44.11	45.21	8.397	8.749	37.0	25
25	RSW TK I SB	RSW	1.025	65.90	67.55	8.993	8.786	55.6	26
26	RSW TK II PS	RSW	1.025	65.55	67.19	5.422	8.919	55.5	27
27	RSW TK II SB	RSW	1.025	65.55	67.19	5.422	8.919	55.5	27
30	RSW TK III PS	RSW	1.025	58.90	60.37	1.847	9.084	54.8	28
31	RSW TK III SB	RSW	1.025	58.90	60.37	1.847	9.084	54.8	28
32	RSW TK IV PS	RSW	1.025	70.96	72.73	-1.637	9.261	128.1	29
33	RSW TK IV SB	RSW	1.025	73.93	75.78	-1.715	9.274	129.8	30
20	HYDR.OIL TK PS	HO	0.870	10.67	9.28	20.401	11.646	3.6	20
UHF	UPPER FISH HOLD	-	-	1051.42	-	58.792	8.482	-	
AFH	AFT FISH HOLD	-	-	1476.60	-	41.702	4.338	-	
FFH	FORE FISH HOLD	-	-	779.09	-	61.365	4.420	-	

1

INCLINING EXPERIMENT

REPORT

(2)

SKIPSKONTROLLEN I FLORØ

Vik & Sandvik A/S,
Postboks 124,
5419 Fitjar.

Postadresse: Postboks 58, 6901 FLORØ
Kontoradr.: Markegt. 31
Telefon: (057) 41733 — 41843
Distrikt: Den del av kommunene Høyanger og Leikanger i Sogn og Fjordane fylke som ligger nord for Sognefjorden samt kommunene Solund, Hyllestad, Balestrand, Sogndal, Luster, Askvold, Fjaler, Gaular, Jølster, Førde, Naustdal, Bremanger, Vågsøy, Selje, Eid, Gloppen, Stryn og Flora.

Deres ref.

Vår ref. (bes oppgitt ved svar)
2618/87 JU/bs

Dato
14.12.87

BNR. 99 V/KLEVEN LØLAND A/S, LEIRVIK.

KRENGEPRØVERAPPORT.

Vedlagt oversendes i godkjent stand 1 eksemplar av krengeprøverapporten.

Det forutsettes at de hydrostatiske data er korrekte.

Jan Ulvøen
Overing.

MOTTATT 15 DES. 1987
ACTION: .....
O. NR. ..... GR. NR. .....
KOPI: .....

(3)

NORWEGIAN SHIP CONTROL OFFICE FLORØ

Address: P.B.58,
N-6901 Florø
NORWAY

Our ref.: 2618/87 JU/bs

Phone: 057-41733/41483

YARD NO. 99 KLEVEN LØLAND A/S, LEIRVIK

Inclining experiment report.

Enclosed please find 1x of the approved inclining experiment report.

The approval is based on the assumption that hydrostatic data are correct.

Jan Ulvøen (sign.)
Principal surveyor

NB! THIS TRANSLATION HAS BEEN WORKED OUT BY VIK & SANDVIK A/S

SJØFARTSDIREKTORATET

....M.F.V..ATLANTEAN.II.....

REPORT ON INCLINING EXPERIMENT

AND

CALCULATION OF LIGHT SHIP DATA

V&S O.no.: 972.

Vik & Sandvik A/s
NAVAL ARCHITECTS / MARINE CONSULTANTS
P.O.BOX 124 — N- 5419 FITJAR NORWAY
TEL. (054) 97 396 — TELEFAX (054) 97 577
TELEX 42407 BOAT N

08.12.87 K.I.Drønen
Date Sign.

Sl brev av 19/12-87

Table 1

I GENERAL INFORMATION

a) Owners (name and address): Desmond Faherty, 63 Thormamby Lawns, Howth, Co.Donegal, Ireland

Yard: Kleven Løland A/S, N-5940 Leirvik i Sogn

Yard no./vessel's name: Y.no.99, M.F.V.Atlantean II

Signal letters: EIXT

For vessels other than newbuildings, specify the reason why new inclining test has been carried out: _____

b) Date of report: 08.12.87

Date report last amended: 09.12.87

Date and place for test: 02.03/12-87.,alongside quay, Kleven Løland A/

Started at: 23.30 Finished at: 03.00

Mooring arrangement during test: Slack hawsers forward and aft, 2 springs.

Weather conditions: Good Sea: none Wind: none

Specific gravity of water: 1,023 t/m^3 Current: none

c) Person in charge of test: K.I. Drønen, Vik & Sandvik A/S

d) Ship surveyor present: Mr. J. Ulvøen

Norwegian Ship Control Survey office: Florø

Table 2

II INFORMATION ON THE VESSEL

Sister ships (Yard nos. or name and signal letters)

1. M.F.V. Veronica - EIDQ
2.
3.
4.
5.

Last time extended (year):

Last time of other reconstruction (year):

Permanent ballast: 170 tonnes

Remarks:

III MAIN PARTICULARS

a)	Length overall	Loa 91,30	m
	Length between perpendiculars	Lbp 81,00	m
	Moulded breadth amidships	B_m 15,00	m
	Draught moulded amidships	D_m 13,00	m
	Rake of keel in Lbp	0,00	m
	Length of weathertight closed superstructure between the A.P. and F.P	18,40	m

INCLINING TEST RESULTS

Ship as inclined

	GM_1 ..... =	0,665
	GM_2 ..... =	0,663
	GM mean ..... =	0,664
	Free surface correction ..... = +	0,002
	GM corrected ..... =	0,666
	KMT from curve sheet ..... =	
(1)	Kmt trimmed waterline ..... =	7,670
	KG for ship as inclined ..... =	7,004
(1)	Displacement for ship as inclined . =	3242,98 t

Lightship

	Displacement ..... =	2858,64
	KM_T from curve sheet ..... =	
	KM_T trimmed waterline ..... =	8,169
	KG lightship (from table 10) ..... =	7,541
(2)	GM_T lightship ..... =	0,628
	LCG lightship ..... =	35,159

If KG for "ship as inclined" is not corrected with respect to trim, the GM_T lightship may not be corrected with respect to same.

(1) Cf. appendix 1
(2) Cf. appendix 2

Table 4

DRAUGHTS DURING TEST
(see fig. 1 & 2)

Unit of measurement: (metres)	Prior to test	After test
Depth mld at ♯ 136..... Freeboard SB ..... Freeboard P ..... Mean ..... Deck plating ..... To rabbet at ♯ 136 ... * To rabbet At the FP		13,777 10,910 10,890 10,900 0,008 2,885 2,906
Depth mld at ♯ 3 ..... Freeboard SB ..... Freeboar P ..... Mean ..... Deck plating ..... To rabbet at ♯ 3 * To rabbet At the AP		10,750 5,140 5,140 5,140 0,020 5,630 5,692
Draught mld. ..... Freeb. readings amidsh. Starboard ..... Port ..... Mean draught ..... Deck plating ..... Draught to rabbet ...		13,000 8,775 8,790 8,783 0,008 4,225
List (degrees)		0,06°
Sag/Hog		0,074 m
from curve sheet at draught = 4.262 Correction: For Shell plating ... For Trim ..... For Sag/Hog ..... For specific gravity of water =1.023	$=[(d_{fp}+d_{ap})x0,5+d_{x}]x0,5$ included	3242,98
Corrected (t)		3242,98

Trim (T)=(da - df) minus rake of keel in Lbp

= (5,692 - 2,906) - 0 = 2,786 m

* Calculated by assuming a straight line through the measured points.

Table 5

INCLINING WEIGHTS

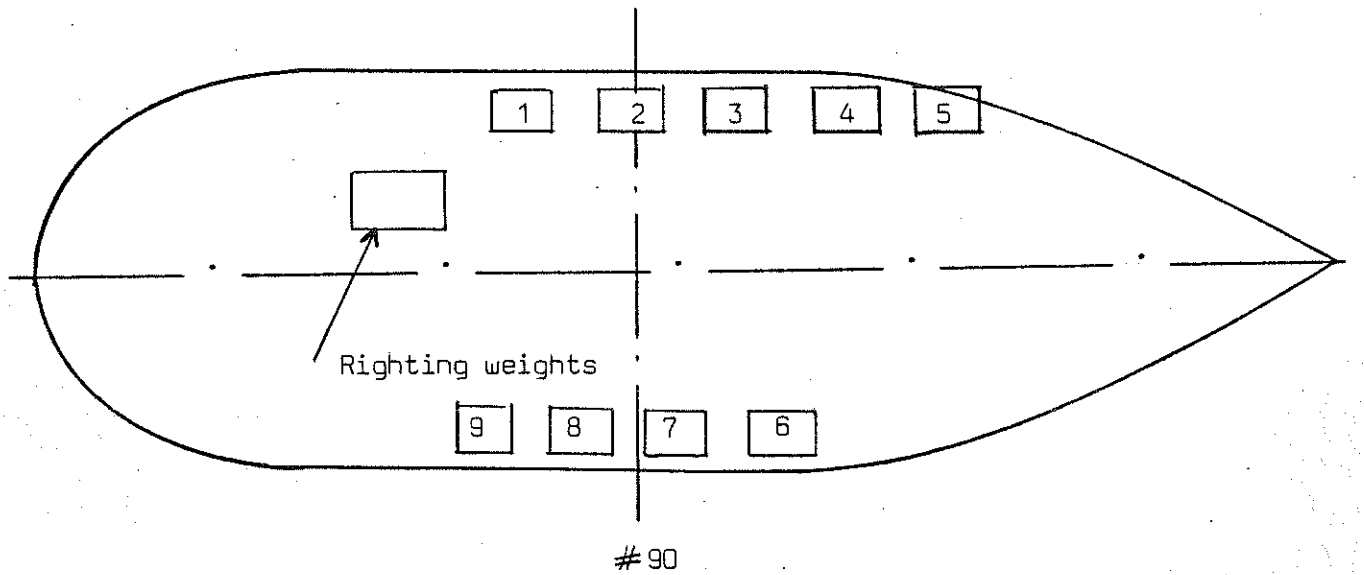
Weight no.	Weight (tonnes)	Material	Weighing check	
			Date	Inspect.
1	3,550	Steel	02.12.87.	K.I.D.
2	3,400	"	---- " -----	"----
3	2,380	"	-----"------	"----
4	2,970	"	-----"------	"----
5	3,030	"	-----"------	"-----
6	3,175	"	-----"------	"-----
7	2,770	"	-----"------	"-----
8	3,380	"	-----"------	"------
9	3,790	"	-----"------	"------

PENDULUMS

Pendulum no.	Length cm	Location
1	468,5	Aft edge of hatch in"Fore Fish hold "
2	466,0	Fore edge of hatch in"Aft Fish hold"

SHIFTING SEQUENCE

Shift no.	Direction (Indicate by arrows)			Weight no.
	P	CL	SB	
1	←		→	8 + 9
2	←		→	6 + 7
3	→		→	6 + 7 + 8
4	→		→	2 + 3 + 4
5	→		→	1
6	→		→	5
7	←		→	2 + 3 + 4 + 5
8				
9				
10				



#90

Location of weights prior to test.

** A minimum of four decimals should b given
* Shifts towards SB yields (a) & (d) positive
" " " P " " " negative

Displacement during test = 3242,98 tonnes

PENDULUM NO.1 lenght L1 =4685 mm PENDULUM NO.2 length L_2 =4660 mm

(1)	(2)	(3)			(4)				(5)				
Shift no.	Weight W (tonnes)	Arm ± d (m)	Moment m (tonnes x m)	Total moment M =Sum m (tonnes x m)	Deflection ± a (mm)	Total deflection A =Sum a (mm)	Tan θ: A/L_1	GM1 singly (m)	Deflection ± a (mm)	Total deflection A =Sum a (mm)	Tan θ A/L_2	GM_2 singly (m)	Wind direction and speed
		± *	(2).(3)		± *	Sum (4)	**	$\frac{(2).(3)L_1}{.(4)}$	± *	Sum (5)	**	$\frac{(2).(3).L_2}{.(5)}$	
1	3.38	-12.97	-43.84										
	3.79	-13.03	-49.38	-93.22	-203.5	-203.5	-0.0434	0.662	-204	-204	-0.0438	0.658	
2	3.175	-6.83	-21.69										
	2.77	-13.30	-36.84	-151.75	-121.5	-325	-0.0694	0.696	-121.5	-325.5	-0.0698	0.692	
	3.175	6.85	21.75										
3	2.77	13.11	36.31										
	3.38	12.97	43.84	-49.85	215	-110	-0.0235	0.685	214.5	-111	-0.0238	0.683	
	3.40	12.74	43.32										
4	2.38	12.69	30.20										
	2.97	12.89	38.28	61.95	244	134	0.0286	0.662	242.5	131.5	0.0282	0.662	
5	3.55	12.84	45.58	107.53	102	236	0.0504	0.646	102	233.5	0.0501	0.642	
6	3.03	12.81	38.81	146.34	84	320	0.0683	0.667	83	316.5	0.0679	0.672	
	3.40	-12.89	-43.83										
7	2.38	-12.54	-29.85										
	2.97	-12.66	-37.60										
	3.03	-12.70	-38.48	-3.42	-320.5	-0.5	-0.0001	0.675	-319	-2.5	-0.0005	0.675	

TANKS TO BE DECUCTED

Tank no. contents	Sounding	Volume (m^3)	Spec.gr.	Weight	VCG	Vert.-mom.	LCG	L.-mom.	Mom.of inertia i	i
TK 2, FW	0.5 m at/#126	0.55	1.0	0.55	0.548		76.135		0.4	0.4
TK 8 FO	Full	82.31	0.845	69.55	0.990		59.572		-	-
TK 9 FO	Full	82.31	0.845	69.55	0.990		59.572		-	-
TK 10 FO	Full	70.89	0.845	59.90	1.111		46.288		-	-
TK 12 FO	Full	70.89	0.845	59.90	1.111		46.288		-	-
TK 38 LO		6.00	0.85	5.10	0.575		19.519		0.8	0.7
TK 22 FO	2.20 m ab/bottom	10.26	0.845	8.67	4.857		10.287		4.0	3.4
TK 23 FO	0.7	1.33	0.845	1.12	4.008		11.093		0.6	0.5
TK 36 FO	1.15	5.88	0.845	4.97	3.935		10.465		2.0	1.7
TK 4 FW	Full	40.45	1.0	40.45	5.601		72.541		-	-
TK 5 FW	Full	40.45	1.0	40.45	5.601		72.541		-	-
				360.21	2.202		55.510			6.7

Korrigering for fri væskeoverflate: $\frac{\text{Sum } (\gamma \times i)}{\Delta} =$ 0.002 (m)

(13)

TRIM CALCULATION

a. Moment to change trim 1 cm

$$\frac{GM_L}{100} \cdot \frac{\quad}{L.b.p} = \frac{\quad (m)}{100} \cdot \frac{\quad (t)}{(m)} = \frac{\quad t\ m}{cm}$$

b. Horizontal distance between center of gravity and center of buoyancy at even keel:

T x moment to change trim 1 cm.

$$= \frac{\quad (m) \qquad \frac{t\ m}{cm} \quad 100}{(t)} = \frac{\quad}{\quad (m)}$$

c. Center of buoyancy from ~~M~~ (even keel)
: _____ (m)

d. Center of gravity from ~~M~~: _____ (m)

REMARKS ON INCLINING TEST:

Table 10

CALCULATION OF LIGHTSHIP VALUES

Item	Weight (tonnes)	C.G. above base line /reference line (metres)	Vertical moment	C.G. from the A.P. (metres)	Longitudinal moment
Ship as inclined	3242,98	7,004	22713,83	37,585	121887,40
Weights to be added					
2 spare blocks	2,00	15,40		1,10	
Aluminium chute	0,25	13,10		2,60	
2 hatch covers, dk.	3,75	6,90		54,01	
Life rafts 02 dk.	0,48	16,00		32,60	
Life jackets	0,25	15,90		31,80	
Sum	6,73		71,61		228,99
Weights to be deducted					
Tank contents	360,21	2,202		55,510	
Staging for welding aggreg.	0,50	14,00		41,80	
6 welding aggreg.	1,29	14,70		41,80	
5 men on 01 dk.	0,38	14,10		55,00	
3 men in holds	0,23	3,00		51,50	
Shift weights	28,46	13,51		54,09	
Sum	391,07		1209,69		21642,23
* Light ship prior to internal movement	2858,64	7,548	21575,75	35,148	100474,16
Light ship	2858,64	7,451		35,159	

* Cf. app.3

DRAUGHTS DURING TEST

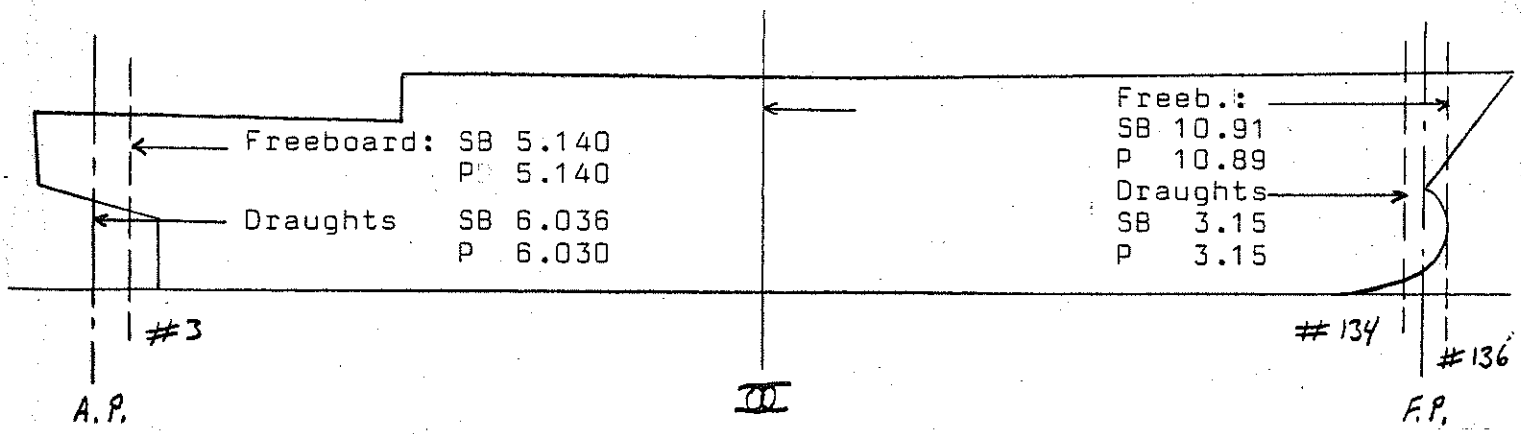


Fig. 1

In this diagram, the following information should be given:

1) Location of draught marks forward and aft (fig. 1).
2) Freeboard readings (starboard and port, fig. 2 or 3).
3) Readings at draught marks fwd. and aft (starboard and port, fig. 1).

NB! "K" should be defined in the hydrostatic calculations.

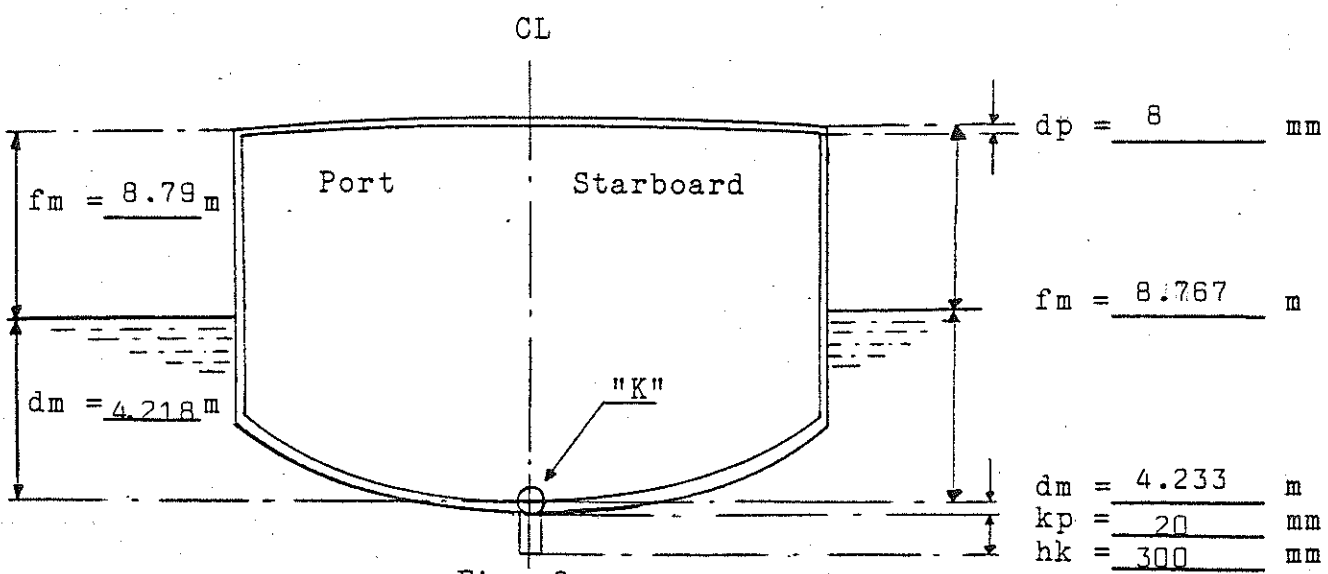


Fig. 2

Vessels with shell plating, (Values should be measured amidships).

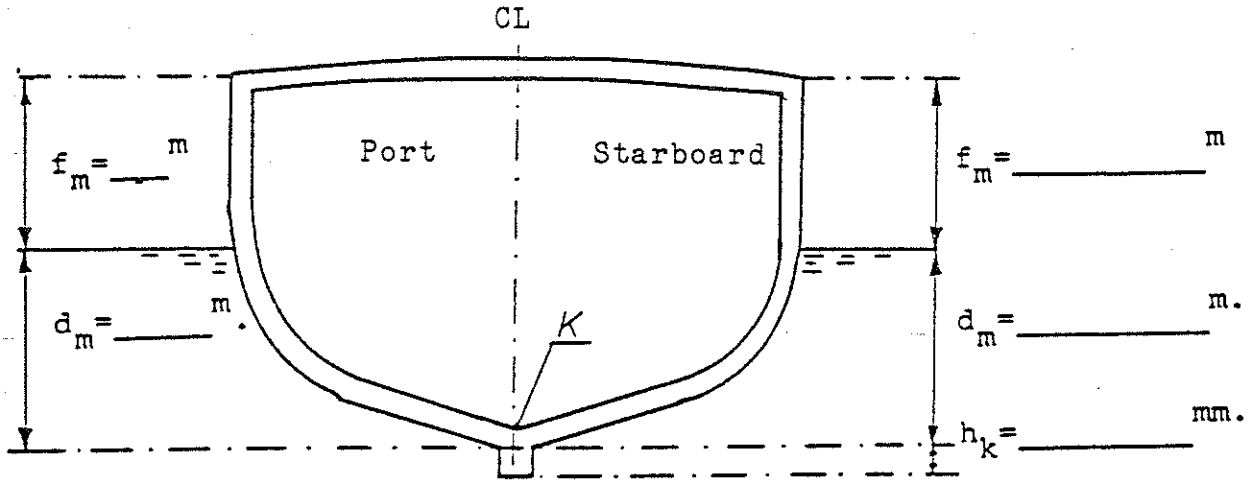


Fig. 3

Vessels without shell plating.
(Values should be measured amidships)

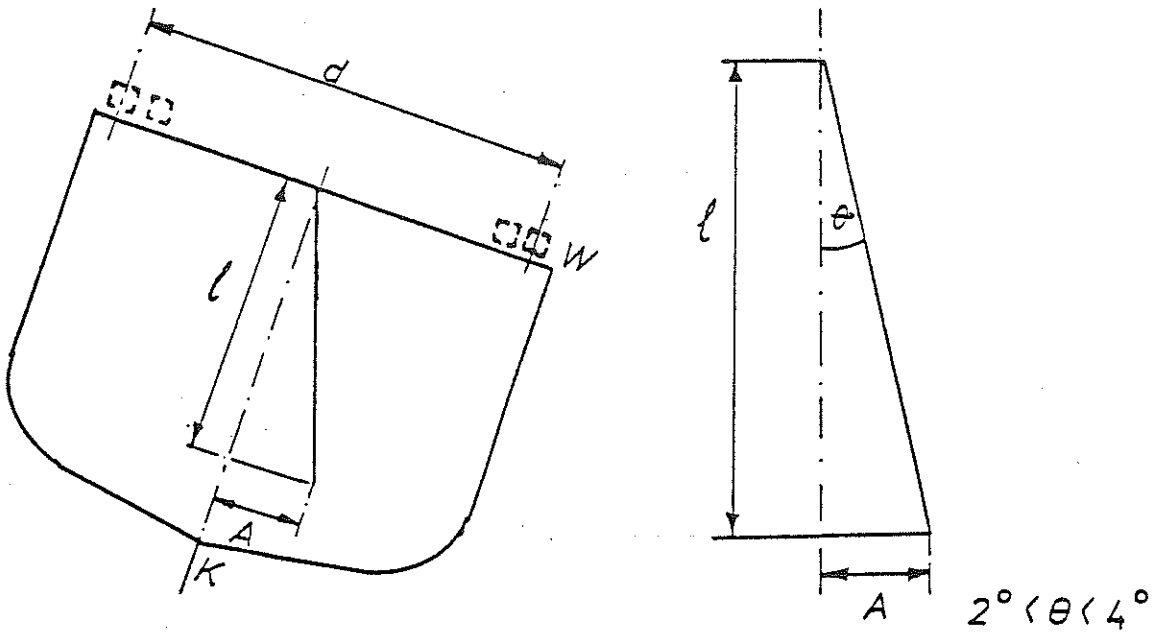
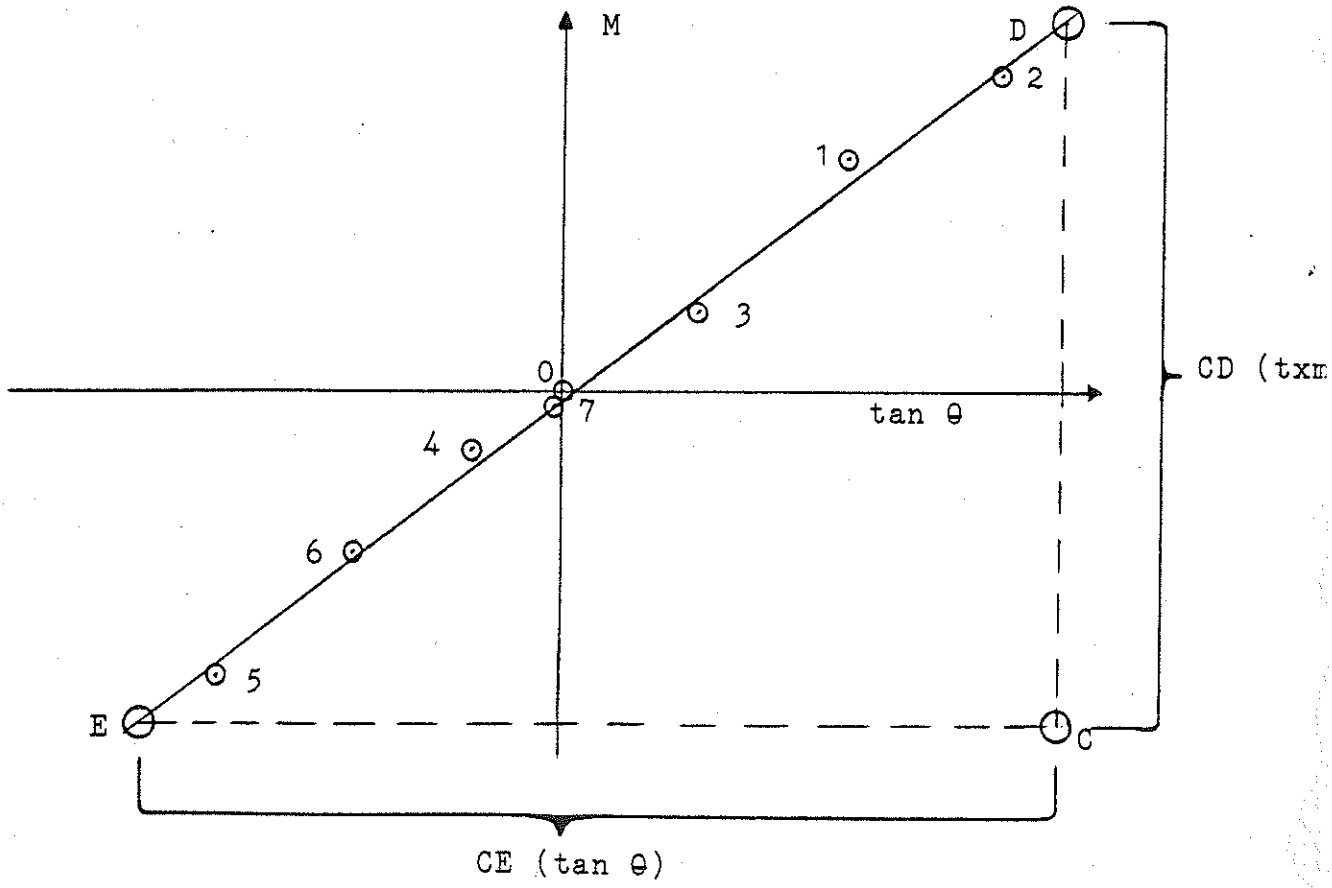


Fig. 4

The angle of inclining, (θ), should be from 2 to 4 degrees to each side. (As for large vessels - tankers, bulk carriers, etc. - an angle as small as 1.5 degrees will be accepted).

For GM calculation, the below graphic method may be applied.



1. Apply a "line of best fit" through the observed points.

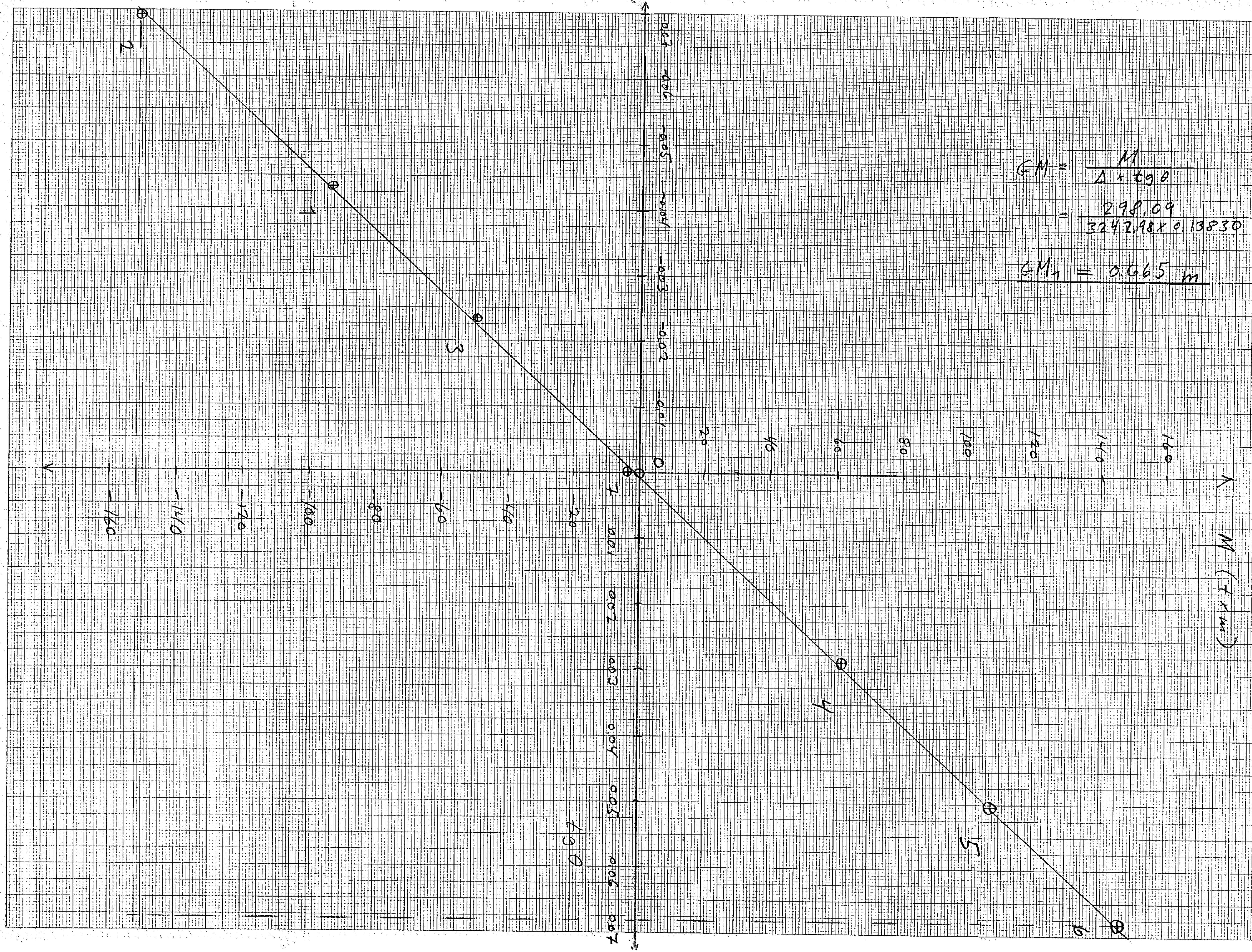
2. Mark 2 arbitrary points D and E (as far apart as possible) on the line.

3. GM calculation:

$$GM = \frac{\text{Slope}}{\Delta} = \frac{CD}{CE \times \Delta} \quad (m)$$

where

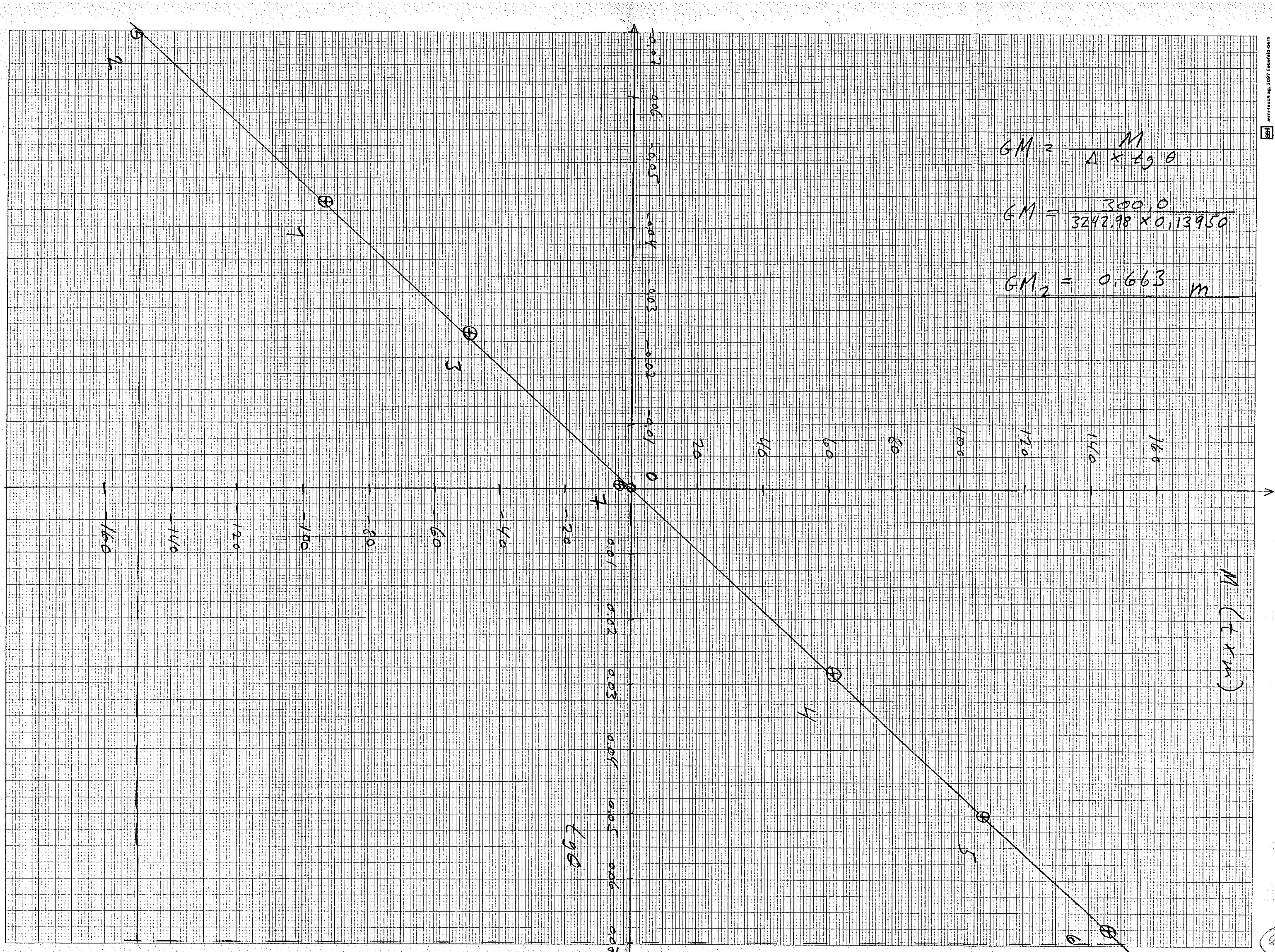
Δ = displacement during test



$$GM = \frac{M}{\Delta \times tg\,\theta}$$

$$= \frac{298.09}{3242.98 \times 0.13830}$$

$$GM_1 = 0.665\ m$$



$$GM = \frac{M}{\Delta \times tg\,\theta}$$

$$GM = \frac{300{,}0}{3242{,}98 \times 0{,}13950}$$

$$GM_2 = 0{,}663 \text{ m}$$

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]	TRIM : 2.786 [m]
1 DRAUGHT EXTREME ...[m]:	4.582	
3 DRAUGHT RFP .....[m]:	4.262	
4 DISP TOTAL SW .....[t]:	3242.98	
5 DISP TOTAL FW .....[t]:	3170.07	
6 DISP MLD .....[m3]:	3154.76	
7 TCF SBD OF RFP ....[m]:	0.000	
8 LCF FWD OF RFP ....[m]:	-3.469	
9 TCB SBD OF RFP ....[m]:	0.000	
10 LCB FWD OF RFP ....[m]:	-2.915	
11 VCB ABOVE RFP .....[m]:	2.554	
12 KMT .....[m]:	7.670	
13 KML .....[m]:	132.798	
14 IT .....[m4]:	16138.1	
15 IL .....[m4]:	411933	
16 MCT SW .....[tm/cm]:	52.026	
18 TPM SW .....[t/cm]:	10.297	
23 WPA .....[m2]:	1006.54	
24 WSA .....[m2]:	1549.34	
25 CB .....:	.6092	
26 CP .....:	.6739	
27 CM .....:	.9041	
28 CW .....:	.8284	

Vessel as inclined, $\gamma_{SW} = 1.023\ t/m^3$

L O A D I N G C O N D I T I O N : I - LIGHTSHIP

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	DEADWEIGHT ..... :	0.0	0.000	0	0.000	0	0.0
	LIGHT SHIP WEIGHT :	2858.6	7.541	21557	35.159	100507	
	DISPLACEMENT .... :	2858.6	7.541	21557	35.159	100507	0.0

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

WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	2788.917 m3
DRAUGHT AT AP (BASELINE)	:	5.924 m
--- '' --- FP (-- '' --)	:	1.688 m
--- '' --- LBP/2 (-- '' --)	:	3.806 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	6.244 m
--- '' --- FP (----- '' -----)	:	2.008 m
--- '' --- LBP/2 (----- '' -----)	:	4.126 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	4.235 m

M E T A C E N T R I C H E I G H T

FREE SURFACE CORRECTION	:	0.000 m
CORRECTED VCG	:	7.541 m
CORRECTED GMT	:	.628 m

S T A B I L I T Y L E V E R S

ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	-0.000	0.000
10.0	.117	1.427
20.0	.268	2.847
30.0	.363	4.133
40.0	.311	5.158
50.0	.262	6.039
60.0	.302	6.833
70.0	.344	7.431
75.0	.275	7.560
31.0 (MAX GZ)	.363	4.247

Shift weights prior to test

No.	Weight (t)	VCG (m)	LCG (m)
1	3.550	13.43	52.06
2	3.400	13.50	53.36
3	2.380	13.57	54.44
4	2.970	13.57	55.53
5	3.030	13.54	56.49
6	3.175	13.64	59.36
7	2.770	13.51	58.06
8	3.380	13.48	49.30
9	3.790	13.40	50.36
	28.445	13.51	54.09

Weights which are moved internally:

3 hatch covers were used as righting weights.
1 tonne oil to be moved from aft deck down one deck.
(system oils).

From:	Weight	VCG	LCG
H.C. 1	2.35	13.15	47.0
H.C. 2	2.35	13.35	47.0
Oil	1.00	11.05	9.5

To:	Weight	VCG	LCG
H.C. 1	2.35	10.09	61.9
H.C. 2	2.35	10.09	46.1
Oil	1.00	7.00	9.5

The changes in the vessel's c.g.s are calculated Thus:

$$\overline{GG_1} = \frac{\Sigma h \times w}{\Delta}$$

Change in VCG: $\overline{GG_1}$ = -0.007 m

Change in LCG: $\overline{GG_1}$ = +0.011 m

NOTE ON MINOR TANKS

The following items are included in part condition "CES" for all loading conditions except I - LIGHTSHIP. The calculated values may be included when calculating different conditions or altered at the skipper's discretion. All items are entered in this table with 50 % of their total capacity.

POS	DESCRIPITION	VOLUME m^3	DENSITY t/m^3	WEIGHT tonnes	VCG	LCG	DENS. $_4$ xI txm^4
38	Lub.oil tk.	6,00	0,87	5,22	0,575	19,519	0,7
35	Sewage tk.	4,73	1,00	4,73	0,659	24,61	21,6
18	Dirty oil tk.	1,43	0,85	1,22	0,562	23,407	0,3
19	Drain tk. clean fuel	1,43	0,85	1,22	0,562	23,407	0,3
17	Lub. oil tk. I	8,65	0,87	7,53	2,289	18,114	12,8
39	" II	3,22	0,87	2,80	2,537	16,24	4,9
40	" III	2,47	0,87	2,15	2,713	15,049	3,9
41	" IV	2,10	0,87	1,83	2,889	13,669	3,1
25	Bilge water tk.	5,26	1,0	5.26	0,612	9,4	2,5
	TOTALS ENTERED			31.96	1.445	17.650	50.1

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LOADING CONDITITONS

I - LIGHTSHIP

II - DEPARTURE PORT

III - ARRIVAL GROUNDS

IV - ARR. PORT WO CATCH

V - DEP. G. 100 % CATCH

VI - ARR. P. 100 % CATCH

VII - DEP. G. 60 % CATCH

VIII - ARR. P. 60 % CATCH

IX - DOCKING CONDITION

X - LOADED TO 7.000 m

PILOT

Det norske Veritas program system for desktop computers

NV5010

LOADING CALCULATION

PROGRAM VERSION : 01/86

MODEL No	NV5000 GEOMETRY : 1
MODEL No USED IN	NV5001 HYDROSTATICS : 1
MODEL No USED IN	NV5001 CROSS CURVES : 1
MODEL No USED IN	NV5010 LOADING COND.: 1

IDENTIFICATION DATA

JOB ID . . . . . : M.F.V. ATLANTEAN II

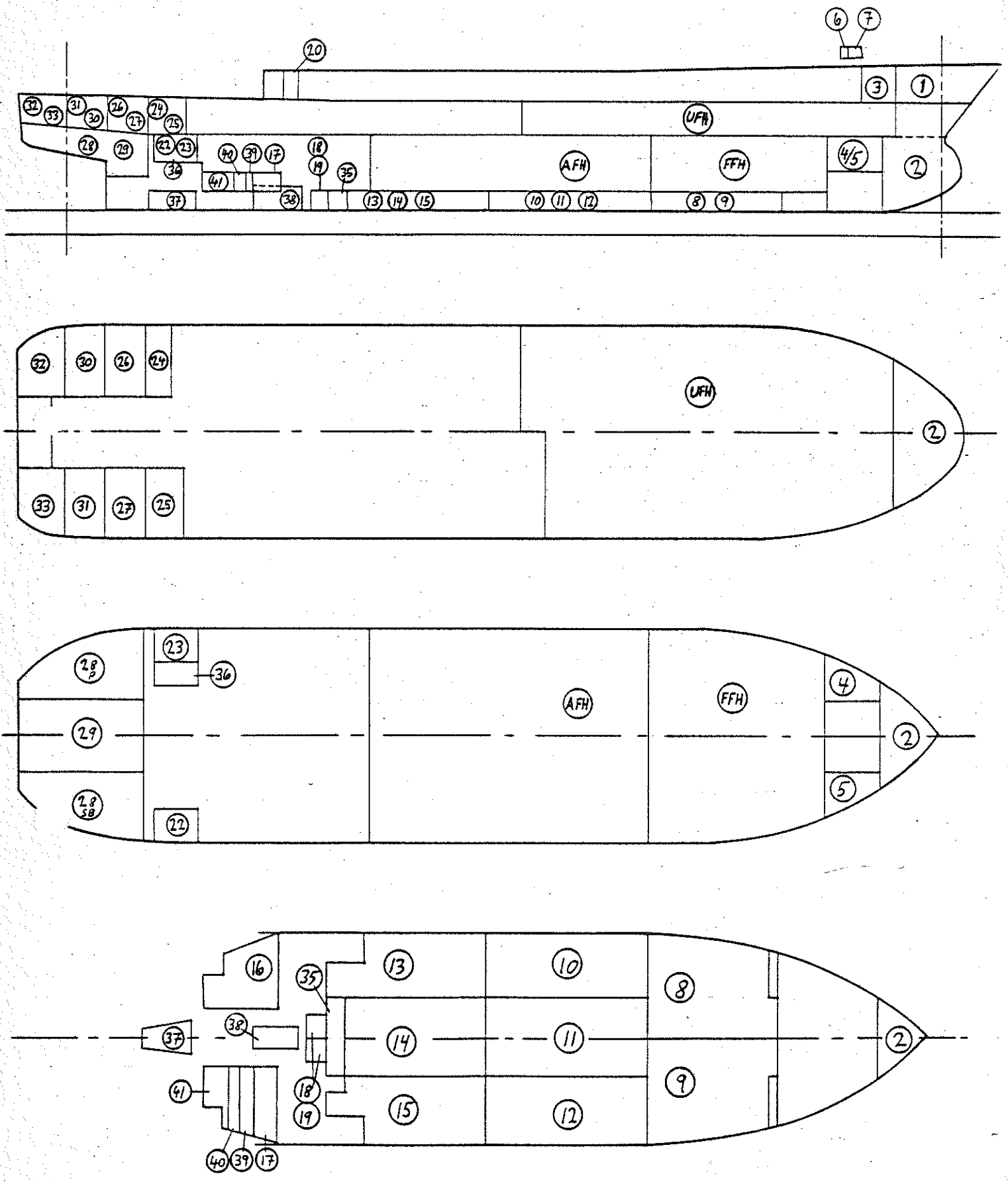
DATE . . . . . : 16.12.87

SIGNATURE . . . . . : KID

PRINCIPAL DATA

DEFINITION OF GLOBAL ORIGIN :
TRANSVERSE : CL
LONGITUDINAL : AP (# 0)
VERTICAL : BL
BASELINE(BL) : LONG. CO-ORD. AXIS THROUGH GLOBAL ORIGIN

LENGTH BETWEEN PERPENDICULARS	:	81.000 m
MOULDED BREADTH	:	15.000 m
MOULDED DEPTH	:	13.000 m
DESIGN DRAUGHT	:	7.000 m
DIST. FROM ORIGIN TO AFT PERPENDICULAR	:	0.000 m
DESIGNED TRIM	:	0.000 m
DIST. FROM BASE-LINE TO UNDERSIDE OF KEEL	:	-.320 m



Condition no. I (04)

L O A D I N G C O N D I T I O N : I - LIGHTSHIP

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	DEADWEIGHT ..... :	0.0	0.000	0	0.000	0	0.0
	LIGHT SHIP WEIGHT :	2858.6	7.541	21557	35.159	100507	
	DISPLACEMENT .... :	2858.6	7.541	21557	35.159	100507	0.0

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

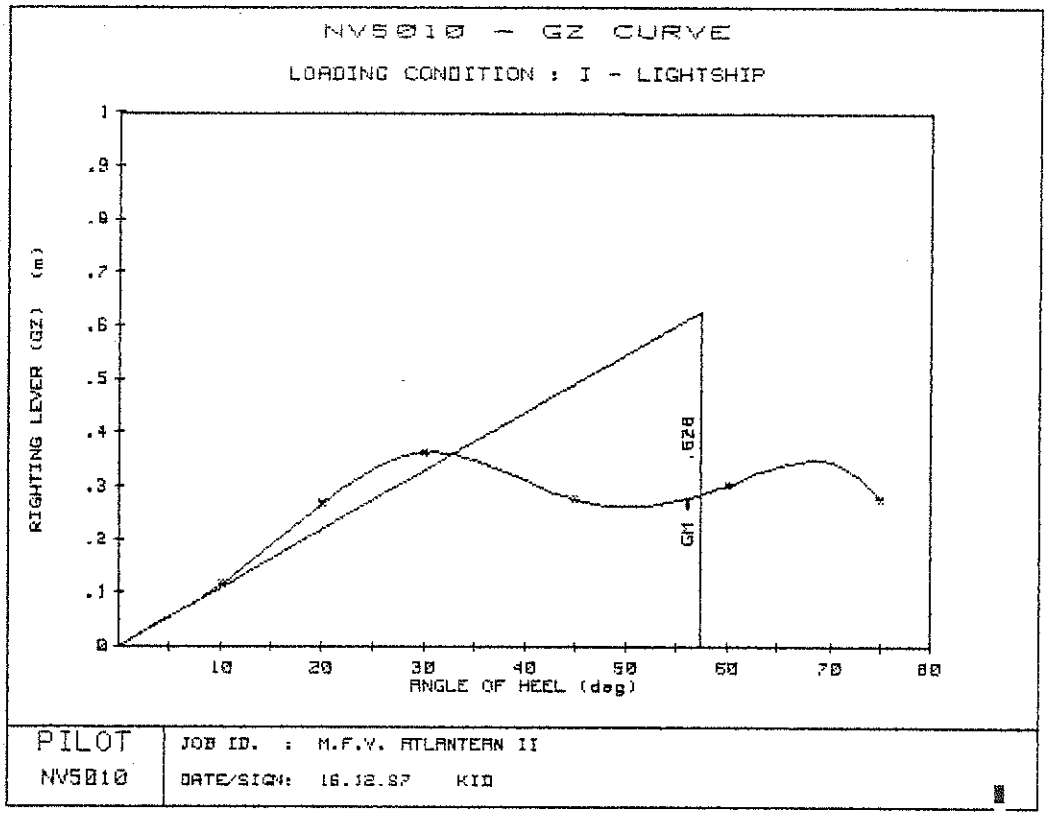
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	2788.917 m3
DRAUGHT AT AP (BASELINE)	:	5.924 m
--- '' --- FP (-- '' --)	:	1.688 m
--- '' --- LBP/2 (-- '' --)	:	3.806 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	6.244 m
--- '' --- FP (----- '' -----)	:	2.008 m
--- '' --- LBP/2 (----- '' -----)	:	4.126 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	4.235 m

M E T A C E T R I C H E I G H T

FREE SURFACE CORRECTION	:	0.000 m
CORRECTED VCG	:	7.541 m
CORRECTED GMT	:	.628 m

S T A B I L I T Y L E V E R S

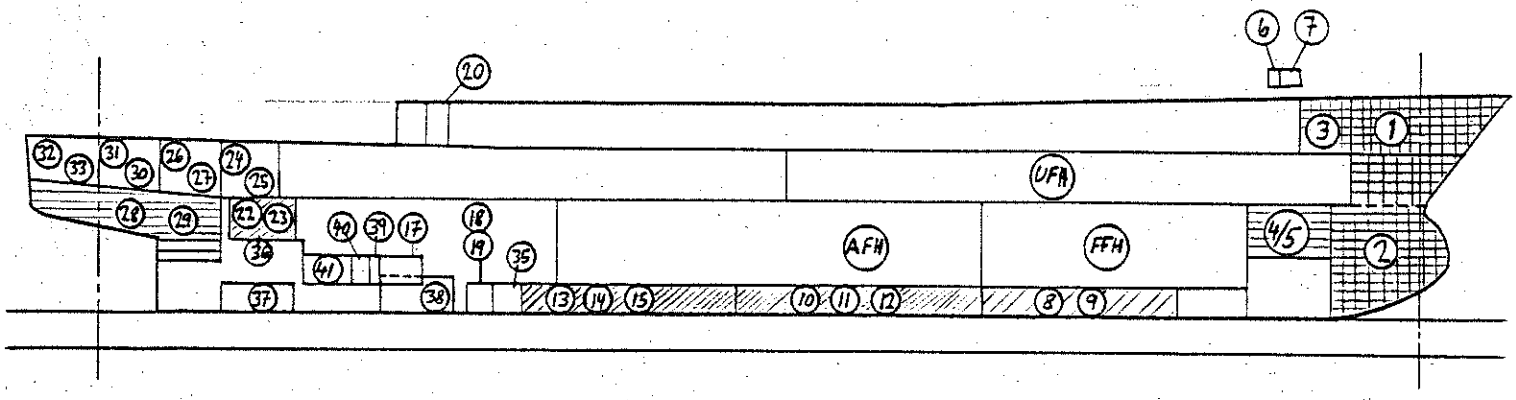
ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	-0.000	0.000
10.0	.117	1.427
20.0	.268	2.847
30.0	.363	4.133
40.0	.311	5.158
50.0	.262	6.039
60.0	.302	6.833
70.0	.344	7.431
75.0	.275	7.560
31.0 (MAX GZ)	.363	4.247

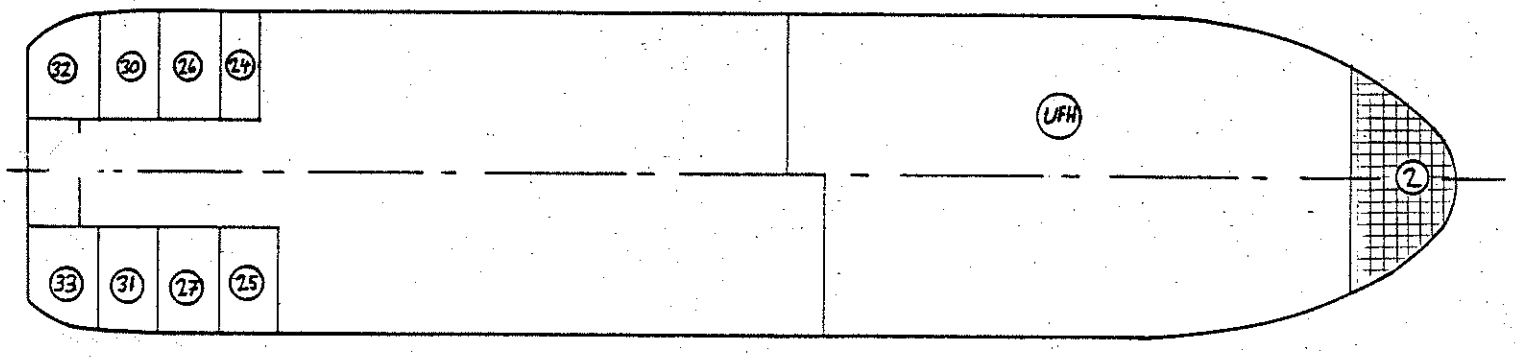


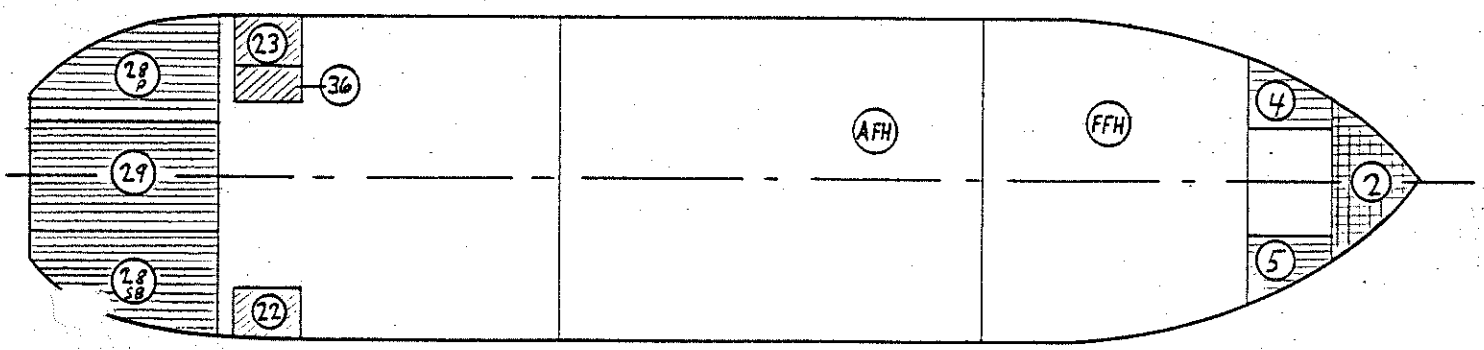
CALCULATION OF GZ-CURVE IS BASED ON INTERPOLATED CROSS CURVE DATA
SPLINE INTERPOLATION IN CROSS CURVES, CALCULATED POINTS ARE MARKED BY '*
'

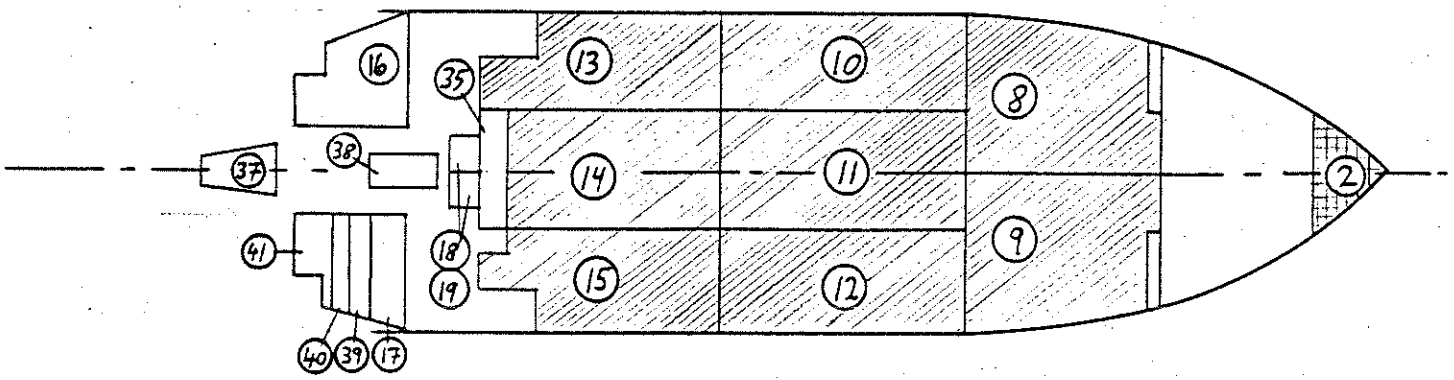
A R E A S U N D E R G Z - C U R V E

0 - 31.0	(MAX GZ)	:	.106	m*Rad
0 - 15.0		:	.024	m*Rad
0 - 20.0		:	.044	m*Rad
0 - 30.0		:	.099	m*Rad
0 - 40.0		:	.159	m*Rad
30 - 40.0		:	.059	m*Rad









FUEL OIL | FRESH WATER | R.S.W. | HOLD | WATER BALLAST

Condition no. II

L O A D I N G C O N D I T I O N : II - DEPARTURE PORT

PART CONDITION INCLUDED : CES - CREW, EQ. & STORES
100% - 100% F.O. & F.W.
WB 2 - WATER BALLAST TK 2
RRT - ROLL RED. TANK
CARD - CARDBOARD

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	WATER BALLAST						
TK 2	FOREPEAK TK	156.4	6.441	1007	78.462	12270	0.0
		156.4	6.441	1007	78.462	12270	0.0
	ROLL REDUCT. TANKS						
TK 3	ROLL REDUCT. TK	99.6	11.320	1128	74.957	7466	747.2
		99.6	11.320	1128	74.957	7466	747.2
	FRESHWATER TANKS						
TK 4	WING TK I P	40.5	5.601	227	72.571	2935	0.0
TK 5	WING TK I SB	40.5	5.601	227	72.541	2934	16.2
TK 28P	STERN TK P	84.3	6.445	543	2.883	243	0.0
TK 28S	STERN TK SB	84.3	6.445	543	2.883	243	0.0
TK 29	STERN TK C	92.3	6.137	566	2.505	231	0.0
		341.7	6.162	2106	19.276	6587	16.2
	FUEL OIL TANKS						
TK 10	BOTTOM TK II P	60.3	1.111	67	46.288	2789	89.3
TK 11	BOTTOM TK II C	117.4	.915	107	46.495	5458	0.0
TK 12	BOTTOM TK II SB	60.3	1.111	67	46.288	2789	0.0
TK 13	BOTTOM TK III P	51.8	1.120	58	32.622	1689	78.5
TK 14	BOTTOM TK III C	105.5	.929	98	32.257	3404	0.0
TK 15	BOTTOM TK III SB	50.6	1.118	57	32.809	1660	0.0
TK 23	SETTLING TK H.FO	21.5	5.736	124	10.082	217	0.0
TK 36	SERVICE TK H.FO	20.4	5.260	107	9.993	204	1.7
		487.8	1.404	685	37.335	18212	169.5
	DIESEL TANKS						
TK 8	BOTTOM TK I P	71.6	.990	71	59.572	4266	0.0
TK 9	BOTTOM TK I SB	71.6	.990	71	59.572	4266	156.5
TK 22	SERVICE TK DIESEL	20.4	5.657	115	9.974	203	5.1
		163.6	1.571	257	53.393	8735	161.6
	ADDITIONAL LOADS						
CREW		3.0	12.220	37	32.260	97	0.0
STORES		5.0	13.020	65	19.920	100	0.0
NETS		15.0	12.470	187	11.700	176	0.0
WIRES		26.2	13.900	363	14.600	382	0.0
WHTS		6.0	10.570	63	9.000	54	0.0

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DOORS	10.0	13.050	131	3.750	38	0.0
MIN	32.0	1.445	46	17.650	564	50.1
CARDB.	16.3	10.700	174	67.800	1102	0.0
CARDB.	10.0	7.700	77	67.500	675	0.0
	123.4	9.268	1143	25.830	3187	50.1

DEADWEIGHT ..... :	1372.5	4.609	6326	41.135	56457	1144.7
LIGHT SHIP WEIGHT :	2858.6	7.541	21557	35.159	100507	
DISPLACEMENT .... :	4231.1	6.590	27883	37.098	156964	1144.7

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

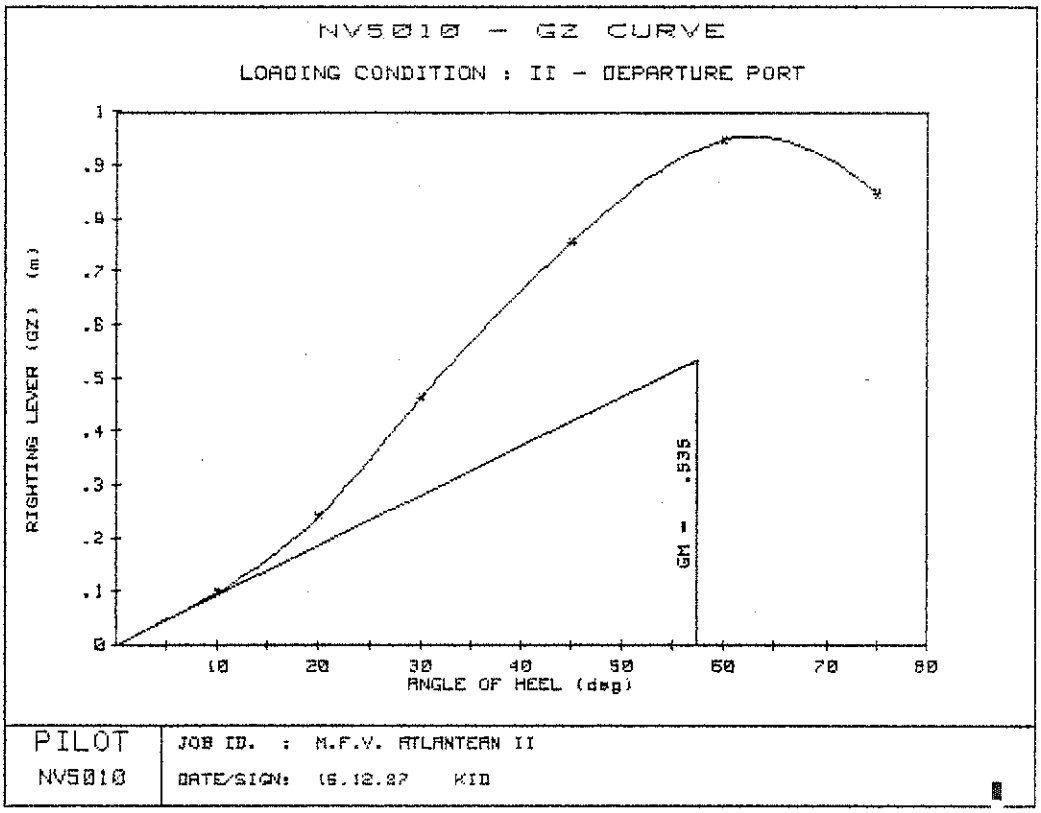
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	4127.912 m3
DRAUGHT AT AP (BASELINE)	:	6.614 m
--- '' --- FP (-- '' --)	:	3.728 m
--- '' --- LBP/2 (-- '' --)	:	5.171 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	6.934 m
--- '' --- FP (----- '' -----)	:	4.048 m
--- '' --- LBP/2 (----- '' -----)	:	5.491 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	2.887 m

M E T A C E T R I C H E I G H T

FREE SURFACE CORRECTION	:	.271 m
CORRECTED VCG	:	6.860 m
CORRECTED GMT	:	.535 m

S T A B I L I T Y L E V E R S

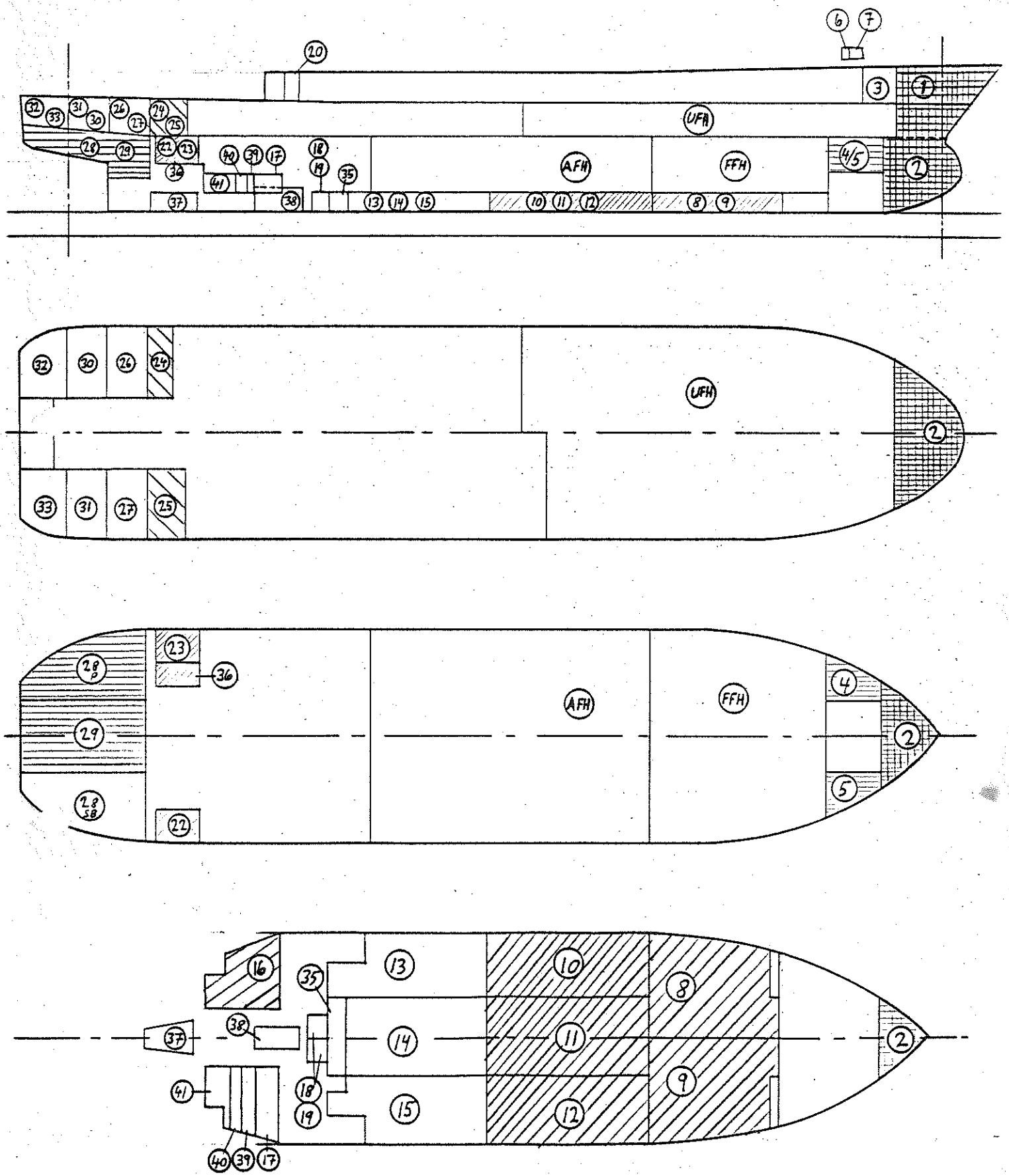
ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	-0.000	0.000
10.0	.100	1.291
20.0	.242	2.588
30.0	.462	3.893
40.0	.664	5.074
50.0	.840	6.095
60.0	.949	6.890
70.0	.914	7.361
75.0	.848	7.475
63.0 (MAX GZ)	.954	7.067



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

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

0 - 63.0	(MAX GZ)	: .536	m*Rad
0 - 15.0		: .021	m*Rad
0 - 20.0		: .037	m*Rad
0 - 30.0		: .097	m*Rad
0 - 40.0		: .196	m*Rad
30 - 40.0		: .099	m*Rad



FUEL OIL | FRESH WATER | R.S.W. | HOLD | WATER BALLAST

Condition no. III

L O A D I N G C O N D I T I O N : III - ARRIVAL GROUNDS

PART CONDITION INCLUDED :
- CES - CREW, EQ. & STORES
- 60% - 60% F.O. & F.W.
- WB 4 - 100% TK 2/50% TK 1
- CARD - CARDBOARD
- RSW 2 - 2 FULL TANKS

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	WATER BALLAST						
TK 1	FORECASTLE TK	51.4	11.179	574	80.489	4136	31.1
TK 2	FOREPEAK TK	156.4	6.441	1007	78.462	12270	0.0
		207.8	7.613	1582	78.963	16405	31.1
	FRESHWATER TANKS						
TK 4	WING TK I P	40.5	5.601	227	72.541	2934	0.0
TK 5	WING TK I SB	40.5	5.601	227	72.541	2934	16.2
TK 28P	STERN TK P	84.3	6.445	543	2.883	243	0.0
TK 29	STERN TK C	39.9	5.240	209	4.120	164	35.5
		205.0	5.878	1205	30.609	6276	51.7
	FUEL OIL TANKS						
TK 10	BOTTOM TK II P	26.5	.761	20	46.269	1225	67.6
TK 11	BOTTOM TK II C	117.4	.915	107	46.495	5458	0.0
TK 12	BOTTOM TK II SB	60.3	1.111	67	46.288	2789	89.3
TK 23	SETTLING TK H.FO	21.5	5.736	124	10.082	217	0.0
TK 36	SERVICE TK H.FO	8.3	4.283	36	10.213	85	1.7
		234.0	1.511	354	41.775	9775	158.5
	WASTE TANKS						
TK 16	SLUDGE TK	12.9	2.355	30	17.246	222	26.2
		12.9	2.355	30	17.246	222	26.2
	DIESEL TANKS						
TK 8	BOTTOM TK I P	71.6	.990	71	59.572	4266	0.0
TK 9	BOTTOM TK I SB	71.6	.990	71	59.572	4266	0.0
TK 22	SERVICE TK DIESEL	13.6	5.779	79	9.364	128	3.5
		156.8	1.406	221	55.209	8660	3.5
	R.S.W. TANKS						
TK 24	R.S.W. TK I P	45.2	8.793	398	8.397	380	0.0
TK 25	R.S.W. TK I SB	67.6	8.786	594	8.993	608	57.0
		112.8	8.789	991	8.754	987	57.0
	ADDITIONAL LOADS						
CREW		3.0	12.220	37	32.260	97	0.0
STORES		5.0	13.020	65	19.920	100	0.0

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NETS	15.0	12.470	187	11.700	176	0.0
WIRES	26.2	13.900	363	14.600	382	0.0
WHTS	6.0	10.570	63	9.000	54	0.0
DOORS	10.0	13.050	131	3.750	38	0.0
MIN	32.0	1.445	46	17.650	564	50.1
CARDB.	16.3	10.700	174	67.800	1102	0.0
CARDB.	10.0	7.700	77	67.500	675	0.0
	123.4	9.268	1143	25.830	3187	50.1
DEADWEIGHT ..... :	1052.7	5.249	5526	43.235	45512	378.0
LIGHT SHIP WEIGHT :	2858.6	7.541	21557	35.159	100507	
DISPLACEMENT .... :	3911.3	6.924	27083	37.332	146019	378.0

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

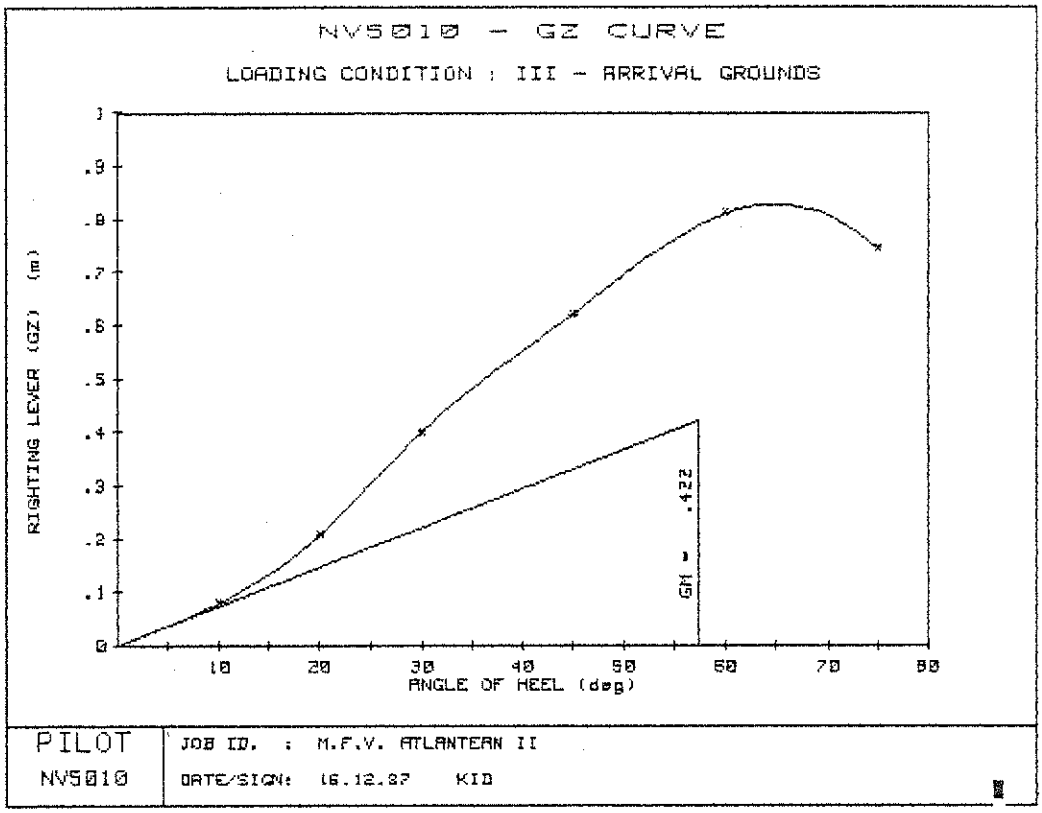
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	3815.902 m3
DRAUGHT AT AP (BASELINE)	:	6.292 m
--- '' --- FP (-- '' --)	:	3.476 m
--- '' --- LBP/2 (-- '' --)	:	4.884 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	6.612 m
--- '' --- FP (----- '' -----)	:	3.796 m
--- '' --- LBP/2 (----- '' -----)	:	5.204 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	2.816 m

M E T A C E N T R I C H E I G H T

FREE SURFACE CORRECTION	:	.097 m
CORRECTED VCG	:	7.021 m
CORRECTED GMT	:	.422 m

S T A B I L I T Y L E V E R S

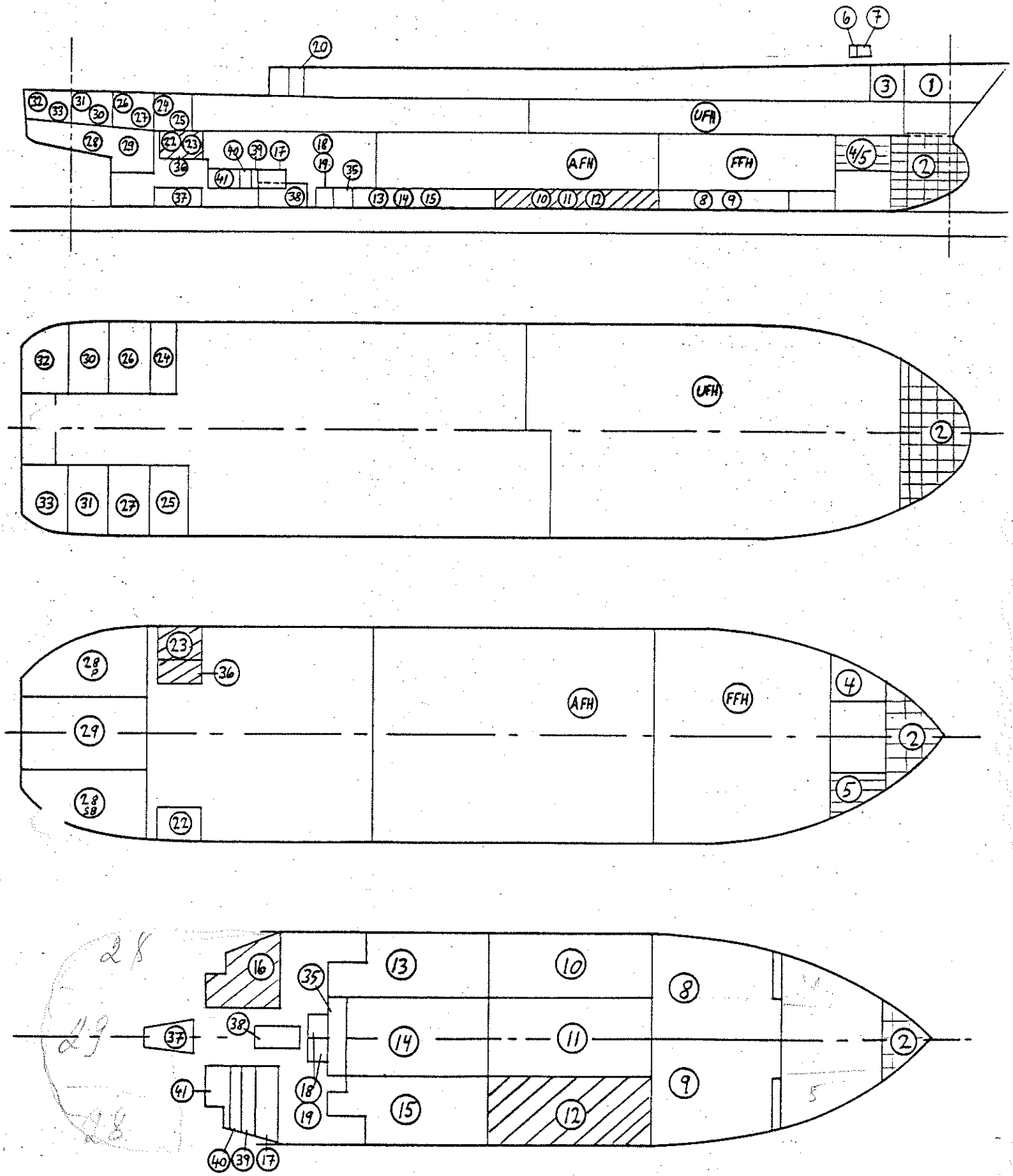
ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	-0.000	0.000
10.0	.081	1.300
20.0	.208	2.609
30.0	.400	3.911
40.0	.552	5.065
50.0	.694	6.073
60.0	.812	6.892
70.0	.807	7.404
75.0	.745	7.527
65.0 (MAX GZ)	.828	7.191



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

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

0 - 65.0	(MAX GZ)	:	.477 m*Rad
0 - 15.0		:	.016 m*Rad
0 - 20.0		:	.031 m*Rad
0 - 30.0		:	.083 m*Rad
0 - 40.0		:	.167 m*Rad
30 - 40.0		:	.084 m*Rad



Condition no. IV

L O A D I N G C O N D I T I O N : IV - ARR. PORT WO CATCH

PART CONDITION INCLUDED :
- CES - CREW, EQ. & STORES
- 10% - 10% F.O. & F.W.
- CARD - CARDBOARD
- WB 6 - TK 2 50% FULL

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	WATER BALLAST						
TK 2	FOREPEAK TK	78.2	4.149	324	77.767	6081	25.9
		78.2	4.149	324	77.767	6081	25.9
	FRESHWATER TANKS						
TK 5	WING TK I SB	34.2	5.378	184	72.535	2479	13.9
		34.2	5.378	184	72.535	2479	13.9
	FUEL OIL TANKS						
TK 12	BOTTOM TK II SB	60.3	1.111	67	46.288	2789	89.3
TK 23	SETTLING TK H.FO	2.9	4.321	12	10.689	30	1.4
TK 36	SERVICE TK H.FO	1.9	3.618	7	10.965	21	1.2
		65.0	1.325	86	43.700	2841	91.8
	WASTE TANKS						
TK 16	SLUDGE TK	29.7	2.801	83	16.728	497	44.8
		29.7	2.801	83	16.728	497	44.8
	ADDITIONAL LOADS						
CREW		3.0	12.220	37	32.260	97	0.0
STORES		5.0	13.020	65	19.920	100	0.0
NETS		15.0	12.470	187	11.700	176	0.0
WIRES		26.2	13.900	363	14.600	382	0.0
WHTS		6.0	10.570	63	9.000	54	0.0
DOORS		10.0	13.050	131	3.750	38	0.0
MIN		32.0	1.445	46	17.650	564	50.1
CARDB.		16.3	10.700	174	67.800	1102	0.0
CARDB.		10.0	7.700	77	67.500	675	0.0
		123.4	9.268	1143	25.830	3187	50.1
	DEADWEIGHT ..... :	330.4	5.511	1821	45.649	15084	226.5
	LIGHT SHIP WEIGHT :	2858.6	7.541	21557	35.159	100507	
	DISPLACEMENT .... :	3189.1	7.331	23378	36.246	115591	226.5

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

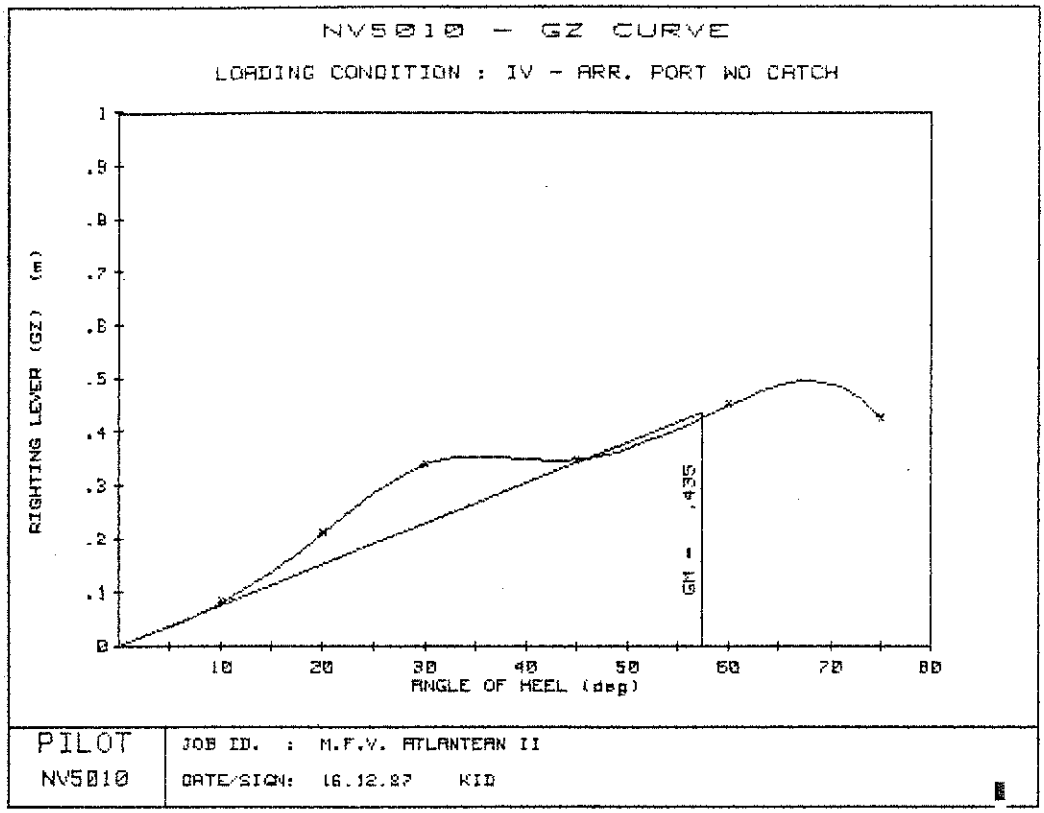
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	3111.288 m3
DRAUGHT AT AP (BASELINE)	:	5.965 m
--- '' --- FP (-- '' --)	:	2.359 m
--- '' --- LBP/2 (-- '' --)	:	4.162 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	6.285 m
--- '' --- FP (----- '' -----)	:	2.679 m
--- '' --- LBP/2 (----- '' -----)	:	4.482 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	3.606 m

M E T A C E T R I C H E I G H T

FREE SURFACE CORRECTION	:	.071 m
CORRECTED VCG	:	7.402 m
CORRECTED GMT	:	.435 m

S T A B I L I T Y L E V E R S

ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	-0.000	0.000
10.0	.083	1.368
20.0	.210	2.742
30.0	.338	4.039
40.0	.350	5.107
50.0	.368	6.038
60.0	.451	6.861
70.0	.490	7.445
75.0	.426	7.575
68.0 (MAX GZ)	.495	7.358



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

AREAS UNDER GZ-CURVE

0 - 68.0	(MAX GZ)	: .333	m*Rad
0 - 15.0		: .015	m*Rad
0 - 20.0		: .032	m*Rad
0 - 30.0		: .080	m*Rad
0 - 40.0		: .141	m*Rad
30 - 40.0		: .061	m*Rad

L O A D I N G C O N D I T I O N : V - DEP. G. 100% CATCH

PART CONDITION INCLUDED : CES - CREW, EQ. & STORES
40% - 40% F.O. & F.W.
LOAD - 100% CARGO & RSW

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	FRESHWATER TANKS						
TK 4	WING TK I P	40.5	5.601	227	72.541	2934	0.0
TK 5	WING TK I SB	40.5	5.601	227	72.541	2934	16.2
TK 28P	STERN TK P	55.8	6.039	337	3.792	212	88.0
		136.7	5.780	790	44.481	6080	104.2
	FUEL OIL TANKS						
TK 10	BOTTOM TK II P	33.6	.840	28	46.235	1553	74.5
TK 12	BOTTOM TK II SB	60.3	1.111	67	46.288	2789	89.3
TK 15	BOTTOM TK III SB	50.6	1.118	57	32.809	1660	0.0
TK 23	SETTLING TK H.FO	21.5	5.736	124	10.082	217	0.0
TK 36	SERVICE TK H.FO	8.5	4.283	36	10.213	87	1.7
		174.5	1.786	312	36.141	6307	165.4
	WASTE TANKS						
TK 16	SLUDGE TK	19.6	2.554	50	16.950	333	34.6
		19.6	2.554	50	16.950	333	34.6
	DIESEL TANKS						
TK 9	BOTTOM TK I SB	71.6	.990	71	59.572	4266	0.0
TK 22	SERVICE TK DIESEL	14.0	5.779	81	9.364	131	4.0
		85.6	1.773	152	51.361	4397	4.0
	R.S.W. TANKS						
TK 24	R.S.W. TK I P	45.2	8.793	398	8.397	380	37.9
TK 25	R.S.W. TK I SB	67.6	8.786	594	8.993	608	57.0
TK 26	R.S.W. TK II P	67.2	8.919	599	5.422	364	0.0
TK 27	R.S.W. TK II SB	67.2	8.919	599	5.422	364	0.0
TK 30	R.S.W. TK III P	60.4	9.084	548	1.847	112	0.0
TK 31	R.S.W. TK III SB	60.4	9.084	548	1.847	112	0.0
TK 32	R.S.W. TK IV P	72.7	9.261	674	-1.637	-119	0.0
TK 33	R.S.W. TK IV SB	75.8	9.274	703	-1.715	-130	0.0
		516.4	9.029	4663	3.272	1690	94.9
	HOLDS						
UFH	UPPER FISH HOLD	630.9	8.482	5351	58.792	37089	0.0
AFH	AFT FISH HOLD	886.0	4.338	3843	41.702	36946	0.0
FFH	FORE FISH HOLD	467.5	4.420	2066	61.365	28685	0.0
		1984.3	5.675	11260	51.768	102720	0.0

ADDITIONAL LOADS

CREW	3.0	12.220	37	32.260	97	0.0
STORES	5.0	13.020	65	19.920	100	0.0
NETS	15.0	12.470	187	11.700	176	0.0
WIRES	26.2	13.900	363	14.600	382	0.0
WHTS	6.0	10.570	63	9.000	54	0.0
DOORS	10.0	13.050	131	3.750	38	0.0
MIN	32.0	1.445	46	17.650	564	50.1
	97.1	9.190	892	14.512	1409	50.1

DEADWEIGHT ..... :	3014.2	6.011	18119	40.786	122936	453.2
LIGHT SHIP WEIGHT :	2858.6	7.541	21557	35.159	100507	
DISPLACEMENT .... :	5872.9	6.756	39676	38.047	223443	453.2

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

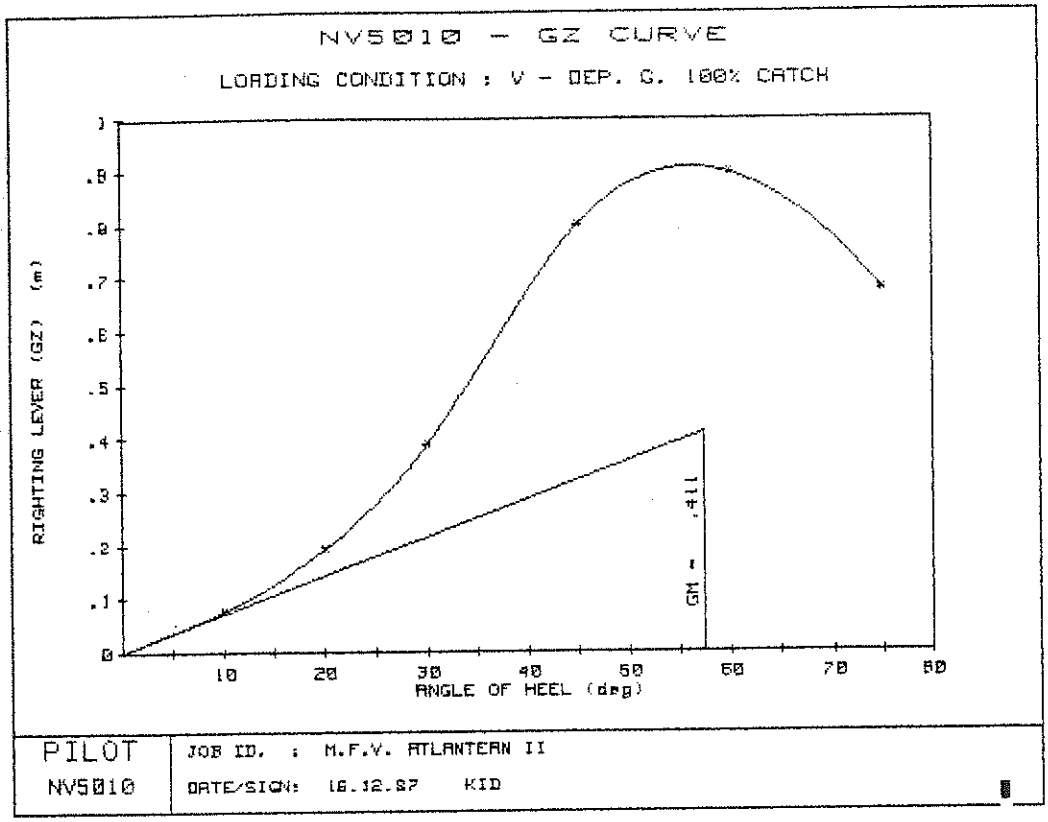
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	5729.610 m3
DRAUGHT AT AP (BASELINE)	:	7.503 m
--- '' --- FP (-- '' --)	:	5.901 m
--- '' --- LBP/2 (-- '' --)	:	6.702 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	7.823 m
--- '' --- FP (----- '' -----)	:	6.221 m
--- '' --- LBP/2 (----- '' -----)	:	7.022 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	1.602 m

M E T A C E N T R I C H E I G H T

FREE SURFACE CORRECTION	:	.077 m
CORRECTED VCG	:	6.833 m
CORRECTED GMT	:	.411 m

S T A B I L I T Y L E V E R S

ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	-0.000	0.000
10.0	.078	1.264
20.0	.193	2.530
30.0	.387	3.803
40.0	.676	5.068
50.0	.878	6.113
60.0	.898	6.815
70.0	.776	7.197
75.0	.677	7.277
56.0 (MAX GZ)	.910	6.574



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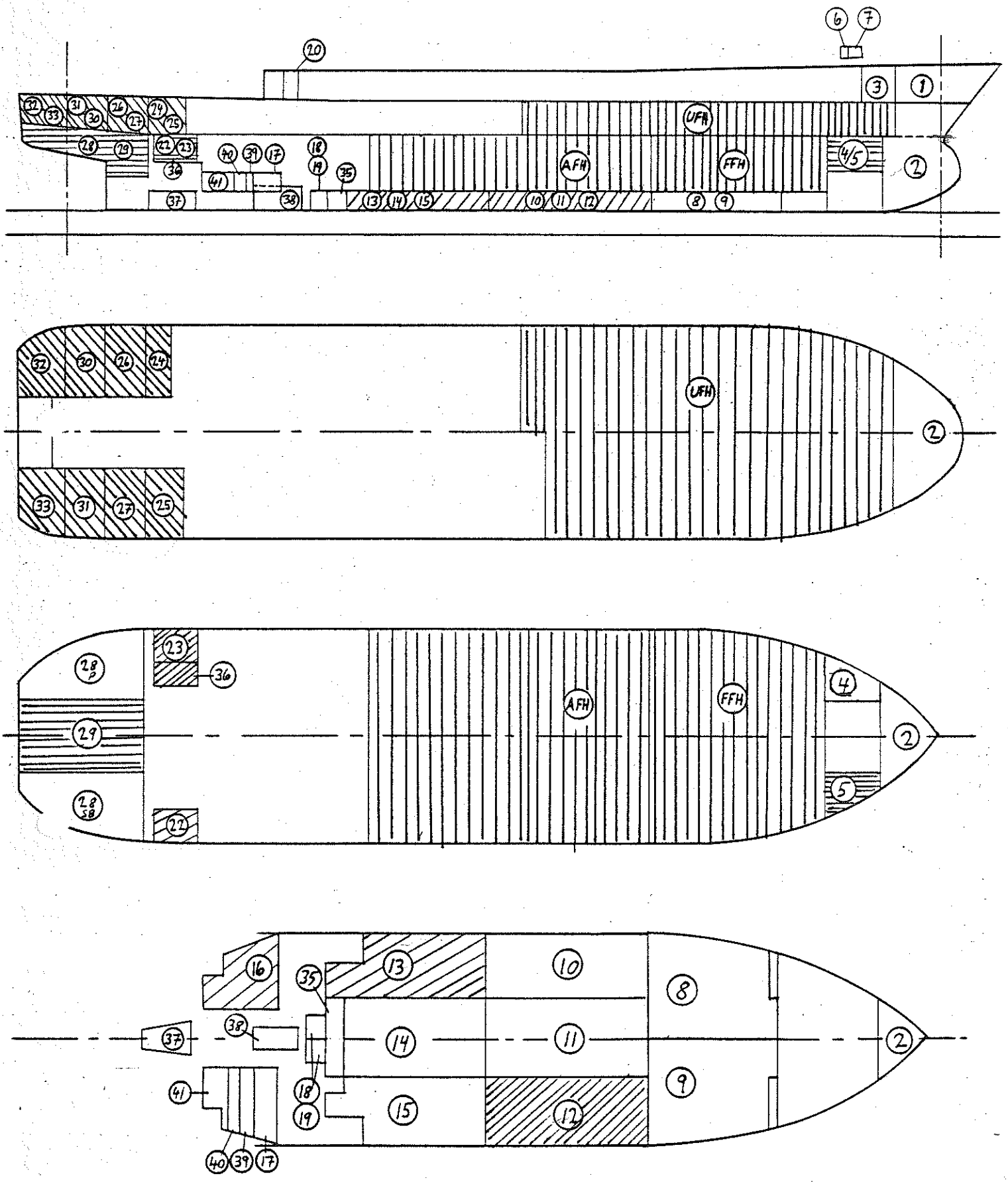
AREAS UNDER GZ-CURVE

0 - 56.0 (MAX GZ)	:	.403	m*Rad
0 - 15.0	:	.016	m*Rad
0 - 20.0	:	.029	m*Rad
0 - 30.0	:	.079	m*Rad
0 - 40.0	:	.170	m*Rad
30 - 40.0	:	.091	m*Rad



FUEL OIL | FRESH WATER | R.S.W. | HOLD | WATER BALLAST

Condition no. VI (45)

L O A D I N G C O N D I T I O N : VI - ARR. P. 100% CATCH

PART CONDITION INCLUDED : CES - CREW, EQ. & STORES
25% - 25% F.O. & F.W.
LOAD - 100% CARGO & RSW

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	FRESHWATER TANKS						
TK 5	WING TK I SB	40.5	5.601	227	72.541	2934	0.0
TK 29	STERN TK C	44.5	5.331	237	3.948	176	37.3
		85.0	5.460	464	36.598	3110	37.3
	FUEL OIL TANKS						
TK 12	BOTTOM TK II SB	60.3	1.111	67	46.288	2789	0.0
TK 13	BOTTOM TK III P	51.8	1.120	58	32.622	1689	78.5
TK 23	SETTLING TK H.FO	21.5	5.736	124	10.082	217	0.0
TK 36	SERVICE TK H.FO	7.6	4.203	32	10.248	77	1.7
		141.1	1.986	280	33.818	4773	80.2
	WASTE TANKS						
TK 16	SLUDGE TK	24.5	2.680	66	16.819	413	39.9
		24.5	2.680	66	16.819	413	39.9
	DIESEL TANKS						
TK 22	SERVICE TK DIESEL	20.4	5.657	115	9.969	203	0.0
		20.4	5.657	115	9.969	203	0.0
	R.S.W. TANKS						
TK 24	R.S.W. TK I P	45.2	8.793	398	8.397	380	37.9
TK 25	R.S.W. TK I SB	67.6	8.786	594	8.993	608	57.0
TK 26	R.S.W. TK II P	67.2	8.919	599	5.422	364	0.0
TK 27	R.S.W. TK II SB	67.2	8.919	599	5.422	364	0.0
TK 30	R.S.W. TK III P	60.4	9.084	548	1.847	112	0.0
TK 31	R.S.W. TK III SB	60.4	9.084	548	1.847	112	0.0
TK 32	R.S.W. TK IV P	72.7	9.261	674	-1.637	-119	0.0
TK 33	R.S.W. TK IV SB	75.8	9.274	703	-1.715	-130	0.0
		516.4	9.029	4663	3.272	1690	94.9
	HOLDS						
UFH	UPPER FISH HOLD	630.9	8.482	5351	58.792	37089	0.0
AFH	AFT FISH HOLD	886.0	4.338	3843	41.702	36946	0.0
FFH	FORE FISH HOLD	467.5	4.420	2066	61.365	28685	0.0
		1984.3	5.675	11260	51.768	102720	0.0
	ADDITIONAL LOADS						
CREW		3.0	12.220	37	32.260	97	0.0
STORES		5.0	13.020	65	19.920	100	0.0

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NETS	15.0	12.470	187	11.700	176	0.0
WIRES	26.2	13.900	363	14.600	382	0.0
WHTS	6.0	10.570	63	9.000	54	0.0
DOORS	10.0	13.050	131	3.750	38	0.0
MIN	32.0	1.445	46	17.650	564	50.1
	97.1	9.190	892	14.512	1409	50.1
DEADWEIGHT ..... :	2868.8	6.184	17741	39.849	114318	302.5
LIGHT SHIP WEIGHT :	2858.6	7.541	21557	35.159	100507	
DISPLACEMENT .... :	5727.4	6.861	39298	37.508	214825	302.5

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

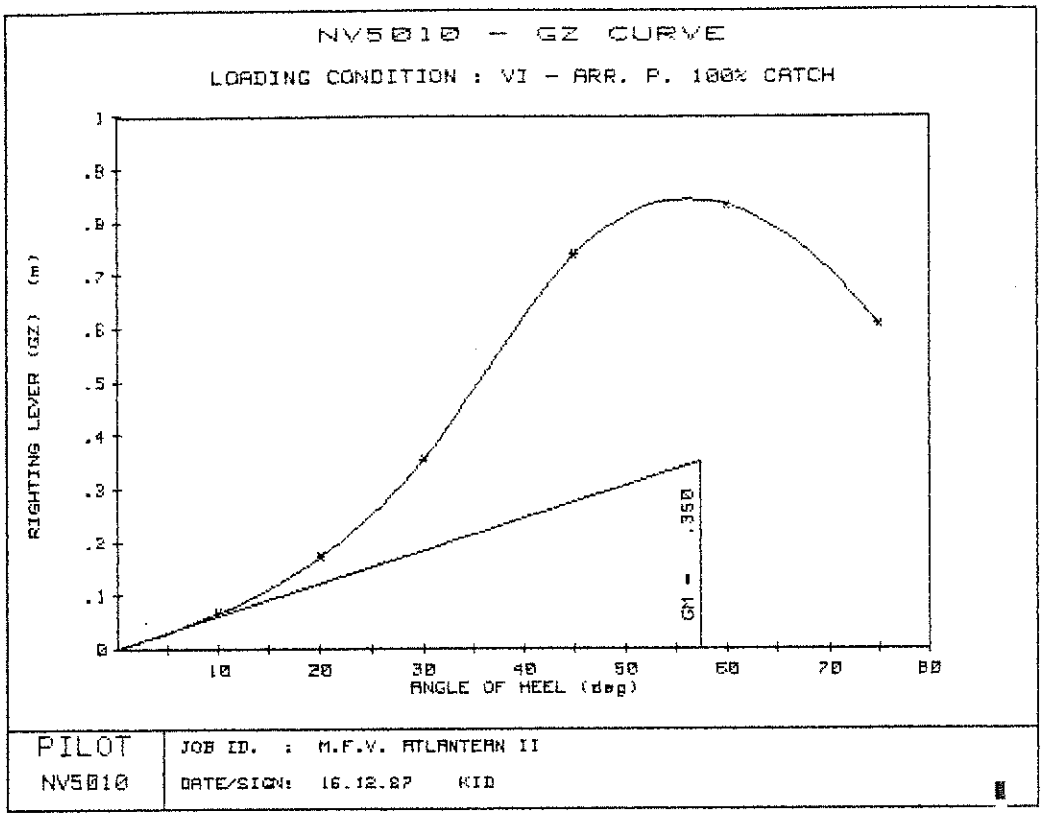
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	5587.746 m3
DRAUGHT AT AP (BASELINE)	:	7.595 m
--- '' --- FP (-- '' --)	:	5.489 m
--- '' --- LBP/2 (-- '' --)	:	6.542 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	7.915 m
--- '' --- FP (----- '' -----)	:	5.809 m
--- '' --- LBP/2 (----- '' -----)	:	6.862 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	2.106 m

M E T A C E T R I C H E I G H T

FREE SURFACE CORRECTION	:	.053 m
CORRECTED VCG	:	6.914 m
CORRECTED GMT	:	.350 m

S T A B I L I T Y L E V E R S

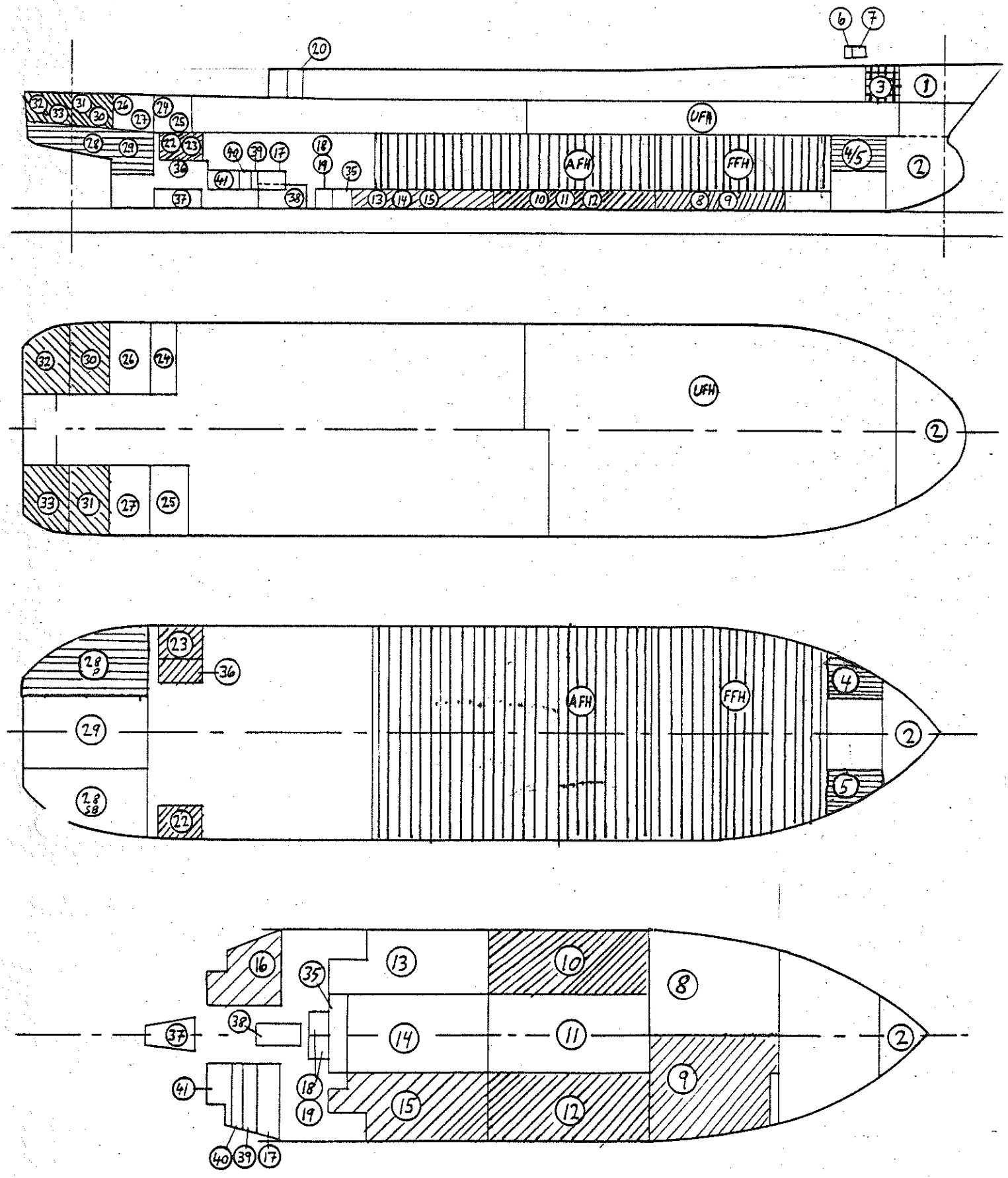
ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	-0.000	0.000
10.0	.067	1.267
20.0	.172	2.537
30.0	.353	3.810
40.0	.622	5.066
50.0	.813	6.110
60.0	.832	6.820
70.0	.708	7.205
75.0	.607	7.286
56.0 (MAX GZ)	.844	6.576



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

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

0 - 56.0	(MAX GZ)	: .370	m*Rad
0 - 15.0		: .014	m*Rad
0 - 20.0		: .025	m*Rad
0 - 30.0		: .070	m*Rad
0 - 40.0		: .154	m*Rad
30 - 40.0		: .084	m*Rad



Condition no. VII (49)

L O A D I N G C O N D I T I O N : VII - DEP. G. 60% CATCH

PART CONDITION INCLUDED : CES - CREW, EQ. & STORES
40% - 40% F.O. & F.W.
RRT - ROLL RED. TANK
LOAD60 - 60% CARGO + RSW
FICA - FISH & CARDBOARD

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	ROLL REDUCT. TANKS						
TK 3	ROLL REDUCT. TK	99.6	11.320	1128	74.957	7466	747.2
		99.6	11.320	1128	74.957	7466	747.2
	FRESHWATER TANKS						
TK 4	WING TK I P	40.5	5.601	227	72.541	2934	0.0
TK 5	WING TK I SB	40.5	5.601	227	72.541	2934	16.2
TK 28P	STERN TK P	55.8	6.039	337	3.792	212	88.0
		136.7	5.780	790	44.481	6080	104.2
	FUEL OIL TANKS						
TK 10	BOTTOM TK II P	33.6	.840	28	46.235	1553	74.5
TK 12	BOTTOM TK II SB	60.3	1.111	67	46.288	2789	89.3
TK 15	BOTTOM TK III SB	50.6	1.118	57	32.809	1660	0.0
TK 23	SETTLING TK H.FO	21.5	5.736	124	10.082	217	0.0
TK 36	SERVICE TK H.FO	8.5	4.283	36	10.213	87	1.7
		174.5	1.786	312	36.141	6307	165.4
	WASTE TANKS						
TK 16	SLUDGE TK	19.6	2.554	50	16.950	333	34.6
		19.6	2.554	50	16.950	333	34.6
	DIESEL TANKS						
TK 9	BOTTOM TK I SB	71.6	.990	71	59.572	4266	0.0
TK 22	SERVICE TK DIESEL	14.0	5.779	81	9.364	131	4.0
		85.6	1.773	152	51.361	4397	4.0
	R.S.W. TANKS						
TK 30	R.S.W. TK III P	46.0	8.710	400	1.852	85	56.0
TK 31	R.S.W. TK III SB	46.0	8.710	400	1.852	85	56.0
TK 32	R.S.W. TK IV P	72.7	9.261	674	-1.637	-119	0.0
TK 33	R.S.W. TK IV SB	75.8	9.274	703	-1.715	-130	0.0
		240.4	9.054	2177	-.328	-79	111.9
	HOLDS						
AFH	AFT FISH HOLD	794.0	4.338	3444	42.700	33904	0.0
FFH	FORE FISH HOLD	467.5	4.420	2066	61.365	28685	0.0
		1261.5	4.368	5511	49.617	62589	0.0

ADDITIONAL LOADS

CREW	3.0	12.220	37	32.260	97	0.0
STORES	5.0	13.020	65	19.920	100	0.0
NETS	15.0	12.470	187	11.700	176	0.0
WIRES	26.2	13.900	363	14.600	382	0.0
WHTS	6.0	10.570	63	9.000	54	0.0
DOORS	10.0	13.050	131	3.750	38	0.0
MIN	32.0	1.445	46	17.650	564	50.1
FISH	25.0	8.000	200	27.000	675	0.0
CARDB.	10.5	10.700	112	67.800	712	0.0
	132.6	9.085	1205	21.086	2796	50.1

DEADWEIGHT ..... :	2150.5	5.265	11323	41.799	89890	1217.5
LIGHT SHIP WEIGHT :	2858.6	7.541	21557	35.159	100507	
DISPLACEMENT .... :	5009.2	6.564	32880	38.010	190397	1217.5

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

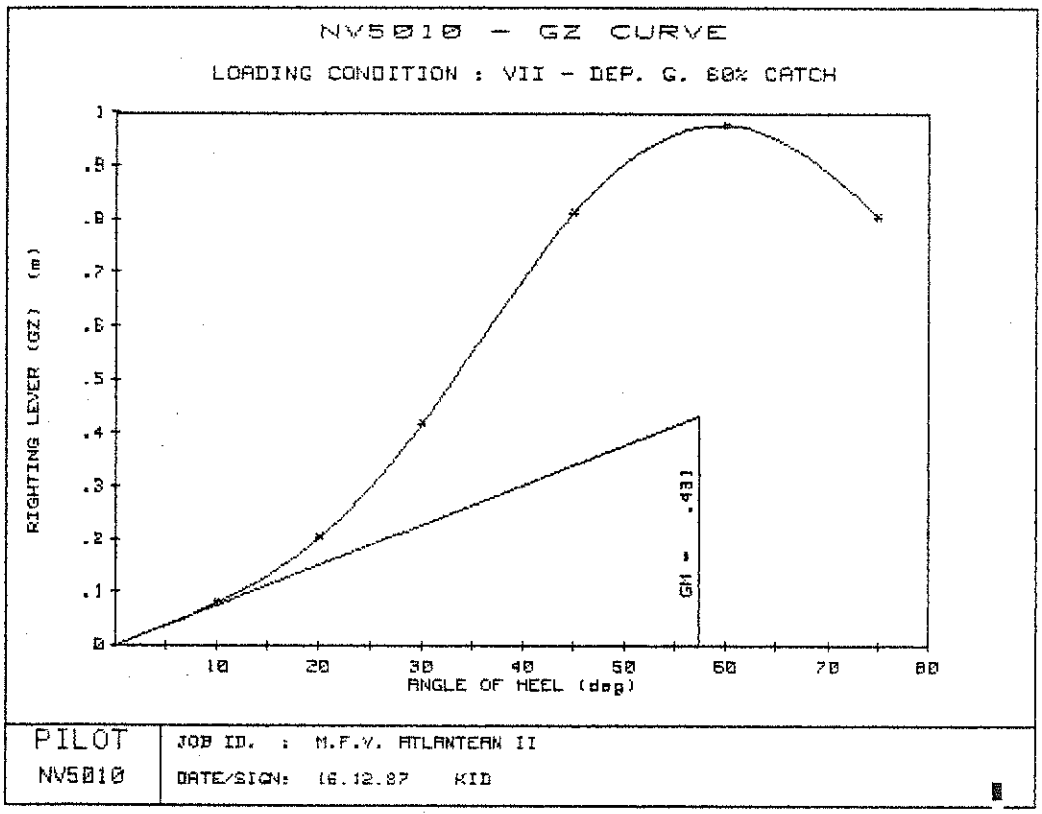
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	4887.005 m3
DRAUGHT AT AP (BASELINE)	:	6.913 m
--- '' --- FP (-- '' --)	:	4.930 m
--- '' --- LBP/2 (-- '' --)	:	5.922 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	7.233 m
--- '' --- FP (----- '' -----)	:	5.250 m
--- '' --- LBP/2 (----- '' -----)	:	6.242 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	1.983 m

METACETRIC HEIGHT

FREE SURFACE CORRECTION	:	.243 m
CORRECTED VCG	:	6.807 m
CORRECTED GMT	:	.431 m

STABILITY LEVERS

ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	-0.000	0.000
10.0	.081	1.263
20.0	.203	2.531
30.0	.417	3.821
40.0	.689	5.064
50.0	.905	6.119
60.0	.978	6.873
70.0	.888	7.285
75.0	.804	7.380
59.0 (MAX GZ)	.978	6.813



CALCULATION OF GZ-CURVE IS BASED ON INTERPOLATED CROSS CURVE DATA
SPLINE INTERPOLATION IN CROSS CURVES, CALCULATED POINTS ARE MARKED BY '*
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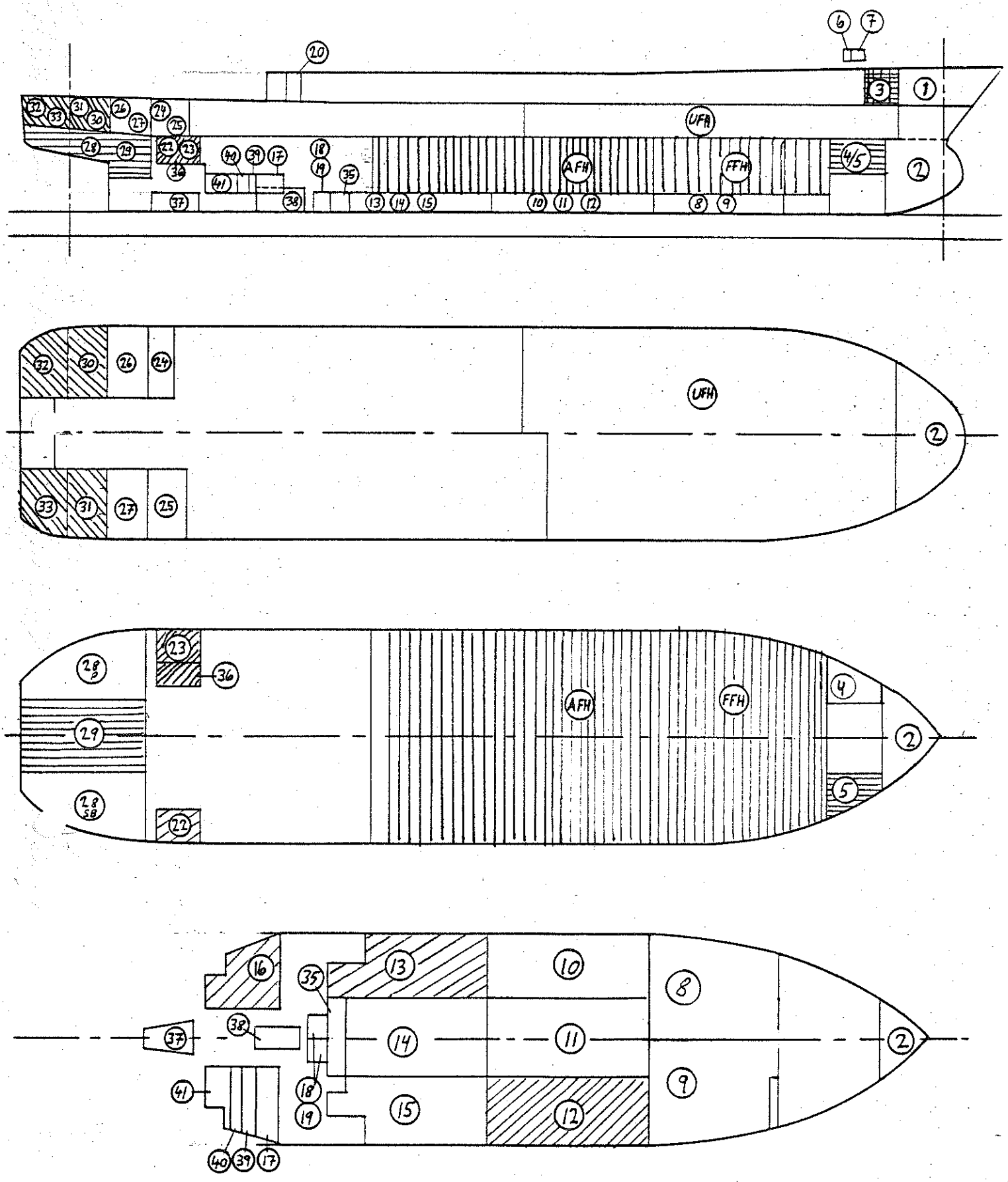
A R E A S U N D E R G Z - C U R V E

0 - 59.0	(MAX GZ)	:	.472	m*Rad
0 - 15.0		:	.017	m*Rad
0 - 20.0		:	.031	m*Rad
0 - 30.0		:	.083	m*Rad
0 - 40.0		:	.179	m*Rad
30 - 40.0		:	.096	m*Rad



Condition no. VIII (59)

L O A D I N G C O N D I T I O N : VIII - ARR. P. 60% CATCH

PART CONDITION INCLUDED :
- CES - CREW, EQ. & STORES
- 25% - 25% F.O. & F.W.
- LOAD60 - 60% CARGO + RSW
- RRT - ROLL RED. TANK
- FICA - FISH & CARDBOARD

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	ROLL REDUCT. TANKS						
TK 3	ROLL REDUCT. TK	99.6	11.320	1128	74.957	7466	747.2
		99.6	11.320	1128	74.957	7466	747.2
	FRESHWATER TANKS						
TK 5	WING TK I SB	40.5	5.601	227	72.541	2934	0.0
TK 29	STERN TK C	44.5	5.331	237	3.948	176	37.3
		85.0	5.460	464	36.598	3110	37.3
	FUEL OIL TANKS						
TK 12	BOTTOM TK II SB	60.3	1.111	67	46.288	2789	0.0
TK 13	BOTTOM TK III P	51.8	1.120	58	32.622	1689	78.5
TK 23	SETTLING TK H.FO	21.5	5.736	124	10.082	217	0.0
TK 36	SERVICE TK H.FO	7.6	4.203	32	10.248	77	1.7
		141.1	1.986	280	33.818	4773	80.2
	WASTE TANKS						
TK 16	SLUDGE TK	24.5	2.680	66	16.819	413	39.9
		24.5	2.680	66	16.819	413	39.9
	DIESEL TANKS						
TK 22	SERVICE TK DIESEL	20.4	5.657	115	9.969	203	0.0
		20.4	5.657	115	9.969	203	0.0
	R.S.W. TANKS						
TK 30	R.S.W. TK III P	46.0	8.710	400	1.852	85	56.0
TK 31	R.S.W. TK III SB	46.0	8.710	400	1.852	85	56.0
TK 32	R.S.W. TK IV P	72.7	9.261	674	-1.637	-119	0.0
TK 33	R.S.W. TK IV SB	75.8	9.274	703	-1.715	-130	0.0
		240.4	9.054	2177	-.328	-79	111.9
	HOLDS						
AFH	AFT FISH HOLD	794.0	4.338	3444	42.700	33904	0.0
FFH	FORE FISH HOLD	467.5	4.420	2066	61.365	28685	0.0
		1261.5	4.368	5511	49.617	62589	0.0

ADDITIONAL LOADS

NV5010 M.F.V. ATLANTEAN II 16.12.87 KID

CREW	3.0	12.220	37	32.260	97	0.0
STORES	5.0	13.020	65	19.920	100	0.0
NETS	15.0	12.470	187	11.700	176	0.0
WIRES	26.2	13.900	363	14.600	382	0.0
WHTS	6.0	10.570	63	9.000	54	0.0
DOORS	10.0	13.050	131	3.750	38	0.0
MIN	32.0	1.445	46	17.650	564	50.1
FISH	25.0	8.000	200	27.000	675	0.0
CARDB.	10.5	10.700	112	67.800	712	0.0
	132.6	9.085	1205	21.086	2796	50.1
DEADWEIGHT ..... :	2005.1	5.459	10945	40.532	81272	1066.7
LIGHT SHIP WEIGHT :	2858.6	7.541	21557	35.159	100507	
DISPLACEMENT .... :	4863.8	6.682	32502	37.374	181779	1066.7

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

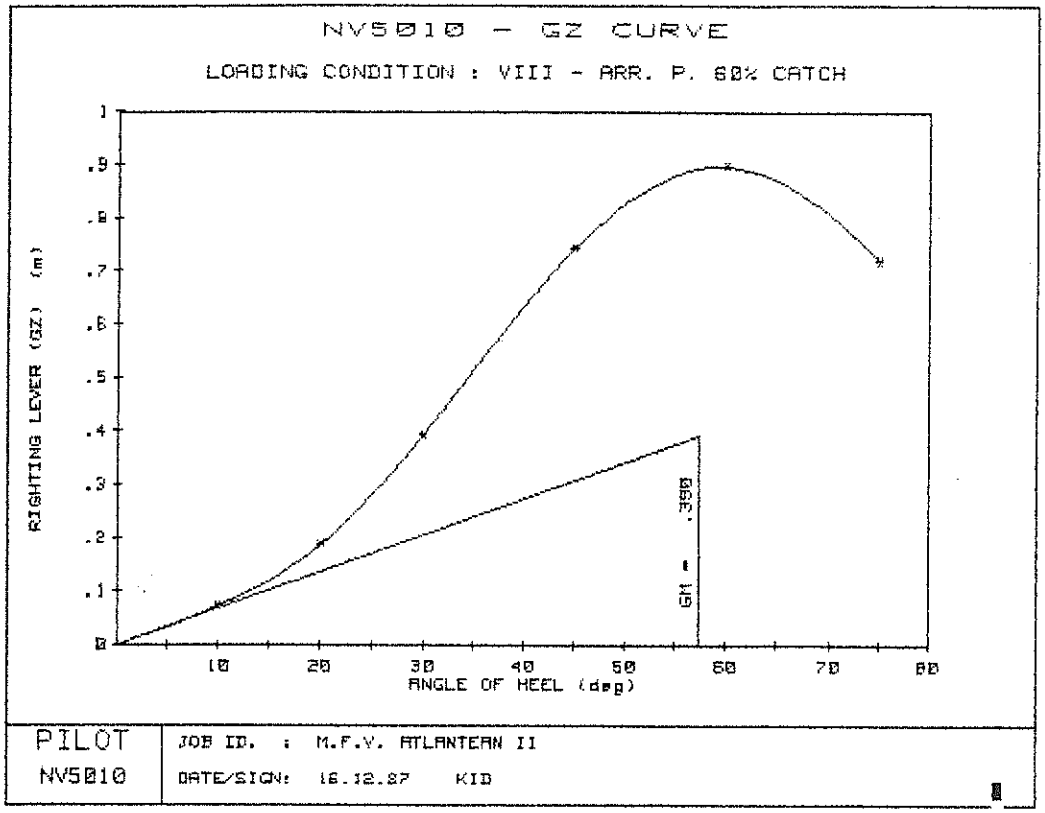
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	4745.141 m3
DRAUGHT AT AP (BASELINE)	:	7.013 m
--- '' --- FP (-- '' --)	:	4.507 m
--- '' --- LBP/2 (-- '' --)	:	5.760 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	7.333 m
--- '' --- FP (----- '' -----)	:	4.827 m
--- '' --- LBP/2 (----- '' -----)	:	6.080 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	2.506 m

M E T A C E T R I C H E I G H T

FREE SURFACE CORRECTION	:	.219 m
CORRECTED VCG	:	6.902 m
CORRECTED GMT	:	.390 m

S T A B I L I T Y L E V E R S

ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	-0.000	0.000
10.0	.074	1.272
20.0	.188	2.549
30.0	.393	3.844
40.0	.635	5.072
50.0	.829	6.116
60.0	.897	6.875
70.0	.807	7.293
75.0	.720	7.387
59.0 (MAX GZ)	.898	6.814

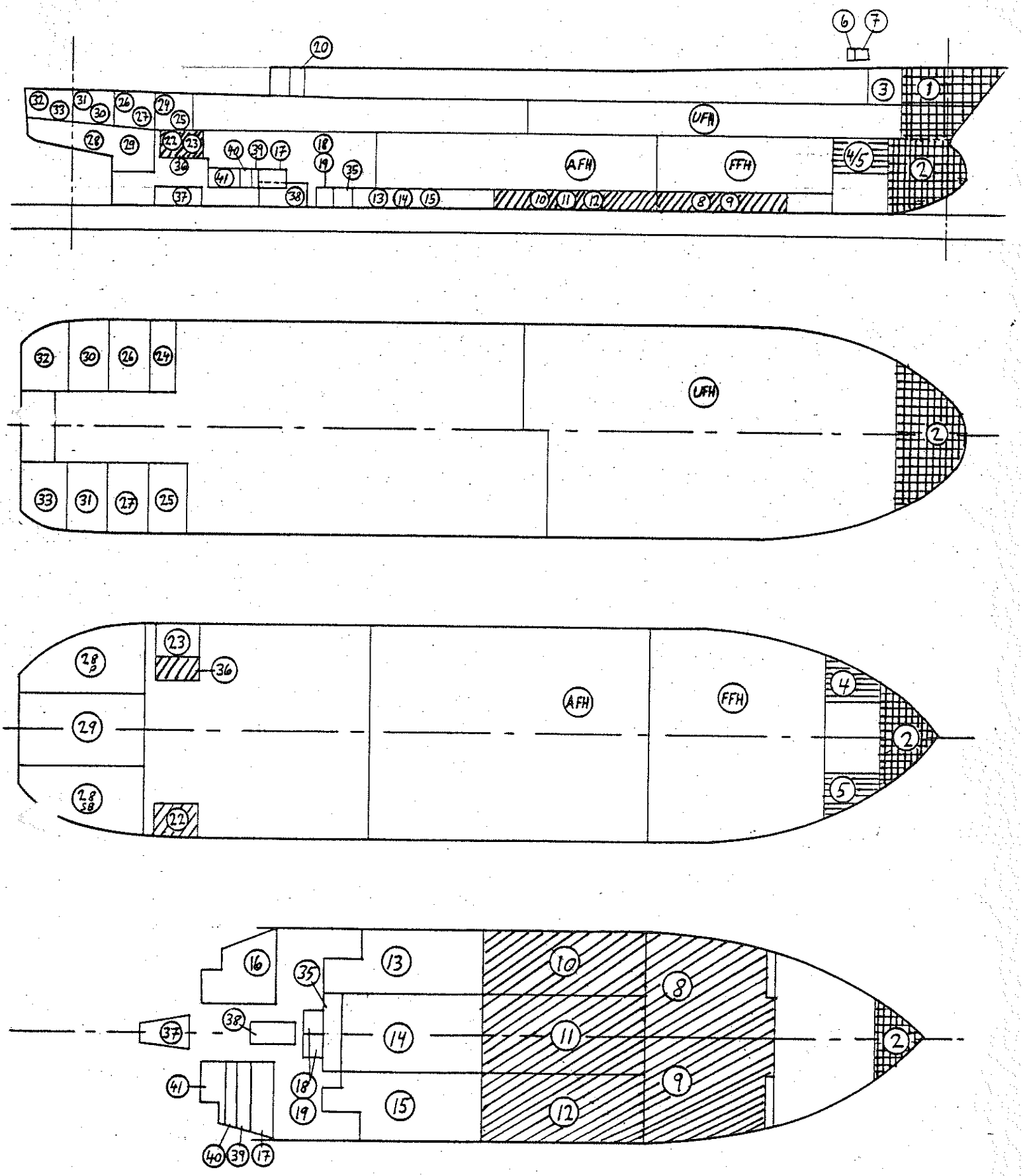


CALCULATION OF GZ-CURVE IS BASED ON INTERPOLATED CROSS CURVE DATA
SPLINE INTERPOLATION IN CROSS CURVES, CALCULATED POINTS ARE MARKED BY '*'

AREAS UNDER GZ-CURVE

0 - 59.0 (MAX GZ)	:	.436	m*Rad
0 - 15.0	:	.015	m*Rad
0 - 20.0	:	.028	m*Rad
0 - 30.0	:	.077	m*Rad
0 - 40.0	:	.166	m*Rad
30 - 40.0	:	.089	m*Rad

Doc/c.



FUEL OIL | FRESH WATER | R.S.W. | HOLD | WATER BALLAST

Condition no. IX (58)

L O A D I N G C O N D I T I O N : IX - DOCKING CONDITION

PART CONDITION INCLUDED :
- CES 2 - CREW, EQ. & STORES
- DOCK - DOCKING CONDITION
- WB 1 - 100% WATER BALLAST

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	WATER BALLAST						
TK 1	FORECASTLE TK	105.3	12.098	1274	80.909	8523	0.0
TK 2	FOREPEAK TK	156.4	6.441	1007	78.462	12270	0.0
		261.7	8.718	2282	79.447	20793	0.0
	FRESHWATER TANKS						
TK 4	WING TK I P	40.5	5.601	227	72.541	2934	16.2
TK 5	WING TK I SB	40.5	5.601	227	72.541	2934	0.0
		80.9	5.601	453	72.541	5869	16.2
	FUEL OIL TANKS						
TK 10	BOTTOM TK II P	60.3	1.111	67	46.288	2789	89.3
TK 11	BOTTOM TK II C	117.4	.915	107	46.495	5458	0.0
TK 12	BOTTOM TK II SB	60.3	1.111	67	46.288	2789	0.0
TK 36	SERVICE TK H.FO	20.4	5.260	107	9.993	204	1.7
		258.3	1.350	349	43.514	11241	91.0
	DIESEL TANKS						
TK 8	BOTTOM TK I P	71.6	.990	71	59.572	4266	0.0
TK 9	BOTTOM TK I SB	71.6	.990	71	59.572	4266	0.0
TK 22	SERVICE TK DIESEL	14.0	5.779	81	9.364	131	3.6
		157.2	1.415	222	55.116	8663	3.6
	ADDITIONAL LOADS						
CREW		3.0	12.220	37	32.260	97	0.0
STORES		2.0	13.020	26	19.920	40	0.0
WIRES		26.2	13.900	363	14.600	382	0.0
MIN		32.0	1.445	46	17.650	564	50.1
TRIMW		30.0	2.500	75	66.000	1980	0.0
		93.1	5.879	547	32.891	3063	50.1
	DEADWEIGHT ..... :	851.2	4.527	3853	58.301	49627	160.8
	LIGHT SHIP WEIGHT :	2858.6	7.541	21557	35.159	100507	
	DISPLACEMENT .... :	3709.9	6.849	25410	40.469	150134	160.8

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

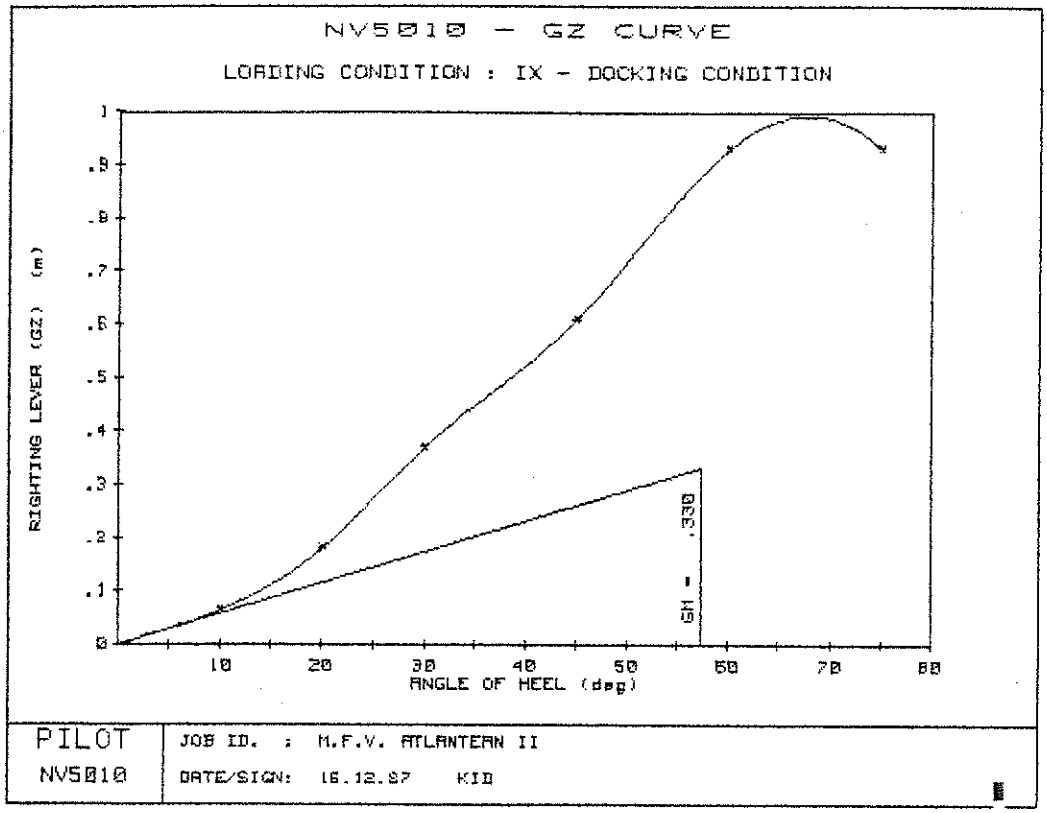
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	3619.376 m3
DRAUGHT AT AP (BASELINE)	:	5.156 m
--- '' --- FP (-- '' --)	:	4.410 m
--- '' --- LBP/2 (-- '' --)	:	4.783 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	5.476 m
--- '' --- FP (----- '' -----)	:	4.730 m
--- '' --- LBP/2 (----- '' -----)	:	5.103 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	.747 m

M E T A C E T R I C H E I G H T

FREE SURFACE CORRECTION	:	.043 m
CORRECTED VCG	:	6.893 m
CORRECTED GMT	:	.330 m

S T A B I L I T Y L E V E R S

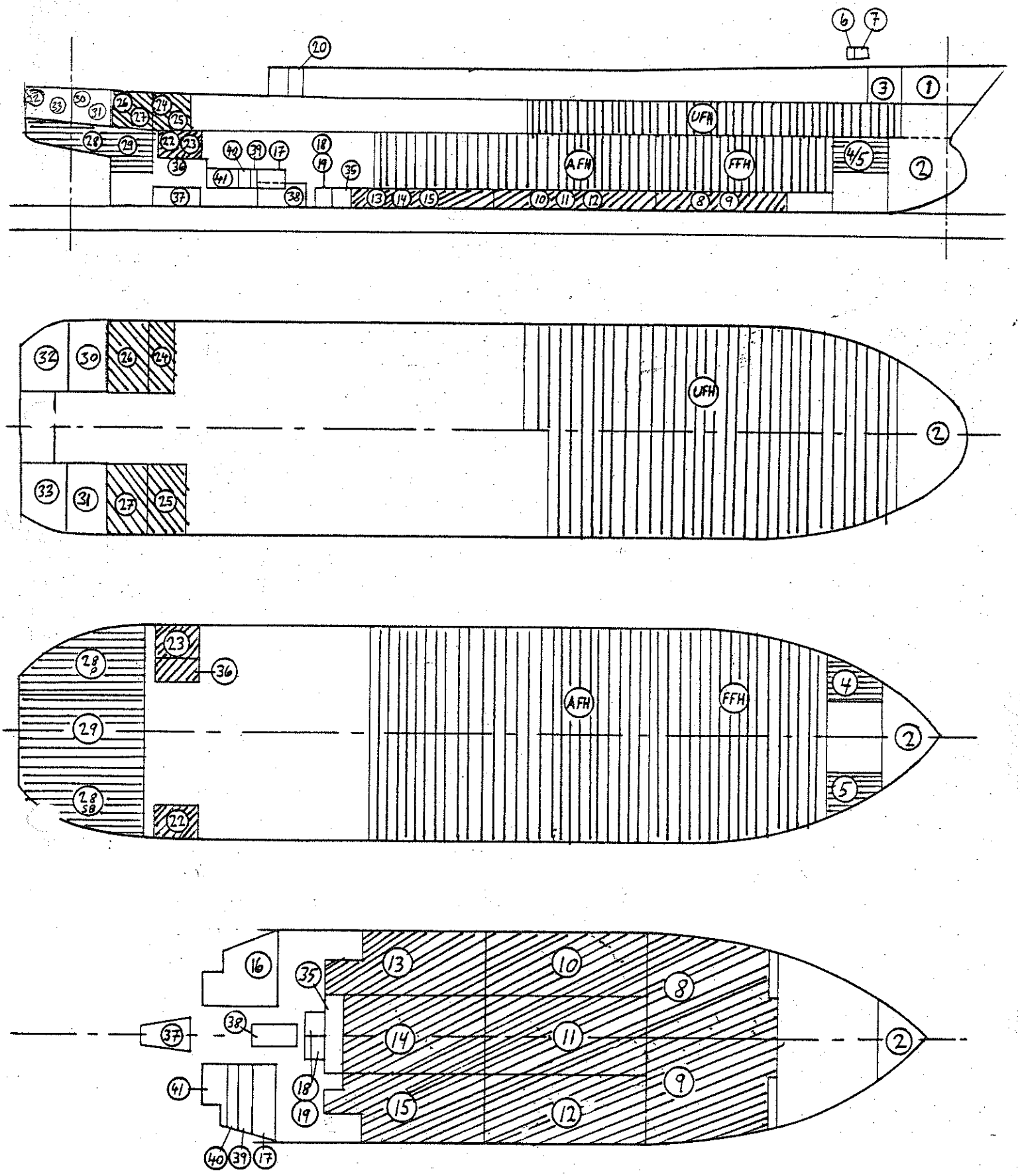
ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	-0.000	0.000
10.0	.066	1.263
20.0	.180	2.538
30.0	.369	3.816
40.0	.523	4.953
50.0	.720	6.000
60.0	.933	6.902
70.0	.987	7.464
75.0	.933	7.591
68.0 (MAX GZ)	.993	7.384



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

AREAS UNDER GZ-CURVE

0 - 68.0 (MAX GZ)	:	.537	m*Rad
0 - 15.0	:	.012	m*Rad
0 - 20.0	:	.026	m*Rad
0 - 30.0	:	.074	m*Rad
0 - 40.0	:	.152	m*Rad
30 - 40.0	:	.078	m*Rad



Condition no. X (62)

L O A D I N G C O N D I T I O N : X - LOADED TO 7.000 m

PART CONDITION INCLUDED : CES - CREW, EQ. & STORES
100% - 100% F.O. & F.W.
LOAD40 - 100% CARGO/40% RSW

W E I G H T L O A D S

LOAD ID. CODE	LOAD ID. TEXT	WEIGHT (t)	VCG (BL.) (m)	V-MOM. (BL.) (tm)	LCG (GLOB.) (m)	L-MOM. (GLOB.) (tm)	FREE SURF. DENS*I (tm)
	FRESHWATER TANKS						
TK 4	WING TK I P	40.5	5.601	227	72.571	2935	0.0
TK 5	WING TK I SB	40.5	5.601	227	72.541	2934	16.2
TK 28P	STERN TK P	84.3	6.445	543	2.883	243	0.0
TK 28S	STERN TK SB	84.3	6.445	543	2.883	243	0.0
TK 29	STERN TK C	92.3	6.137	566	2.505	231	0.0
		341.7	6.162	2106	19.276	6587	16.2
	FUEL OIL TANKS						
TK 10	BOTTOM TK II P	60.3	1.111	67	46.288	2789	89.3
TK 11	BOTTOM TK II C	117.4	.915	107	46.495	5458	0.0
TK 12	BOTTOM TK II SB	60.3	1.111	67	46.288	2789	0.0
TK 13	BOTTOM TK III P	51.8	1.120	58	32.622	1689	78.5
TK 14	BOTTOM TK III C	105.5	.929	98	32.257	3404	0.0
TK 15	BOTTOM TK III SB	50.6	1.118	57	32.809	1660	0.0
TK 23	SETTLING TK H.FO	21.5	5.736	124	10.082	217	0.0
TK 36	SERVICE TK H.FO	20.4	5.260	107	9.993	204	1.7
		487.8	1.404	685	37.335	18212	169.5
	DIESEL TANKS						
TK 8	BOTTOM TK I P	71.6	.990	71	59.572	4266	0.0
TK 9	BOTTOM TK I SB	71.6	.990	71	59.572	4266	156.5
TK 22	SERVICE TK DIESEL	20.4	5.657	115	9.974	203	5.1
		163.6	1.571	257	53.393	8735	161.6
	R.S.W. TANKS						
TK 24	R.S.W. TK I P	15.1	7.601	115	8.401	127	37.9
TK 25	R.S.W. TK I SB	67.6	8.786	594	8.993	608	57.0
TK 26	R.S.W. TK II P	67.2	8.919	599	5.422	364	0.0
TK 27	R.S.W. TK II SB	67.2	8.919	599	5.422	364	0.0
		217.1	8.786	1907	6.741	1463	94.9
	HOLDS						
UFH	UPPER FISH HOLD	630.9	8.482	5351	58.792	37089	0.0
AFH	AFT FISH HOLD	886.0	4.338	3843	41.702	36946	0.0
FFH	FORE FISH HOLD	467.5	4.420	2066	61.365	28685	0.0
		1984.3	5.675	11260	51.768	102720	0.0
	ADDITIONAL LOADS						
CREW		3.0	12.220	37	32.260	97	0.0
STORES		5.0	13.020	65	19.920	100	0.0

NV5010 M.F.V. ATLANTEAN II 16.12.87 KID

NETS	15.0	12.470	187	11.700	176	0.0
WIRES	26.2	13.900	363	14.600	382	0.0
WHTS	6.0	10.570	63	9.000	54	0.0
DOORS	10.0	13.050	131	3.750	38	0.0
MIN	32.0	1.445	46	17.650	564	50.1
	97.1	9.190	892	14.512	1409	50.1

DEADWEIGHT ..... :	3291.5	5.197	17107	42.268	139127	492.4
LIGHT SHIP WEIGHT :	2858.6	7.541	21557	35.159	100507	
DISPLACEMENT .... :	6150.2	6.287	38664	38.964	239634	492.4

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

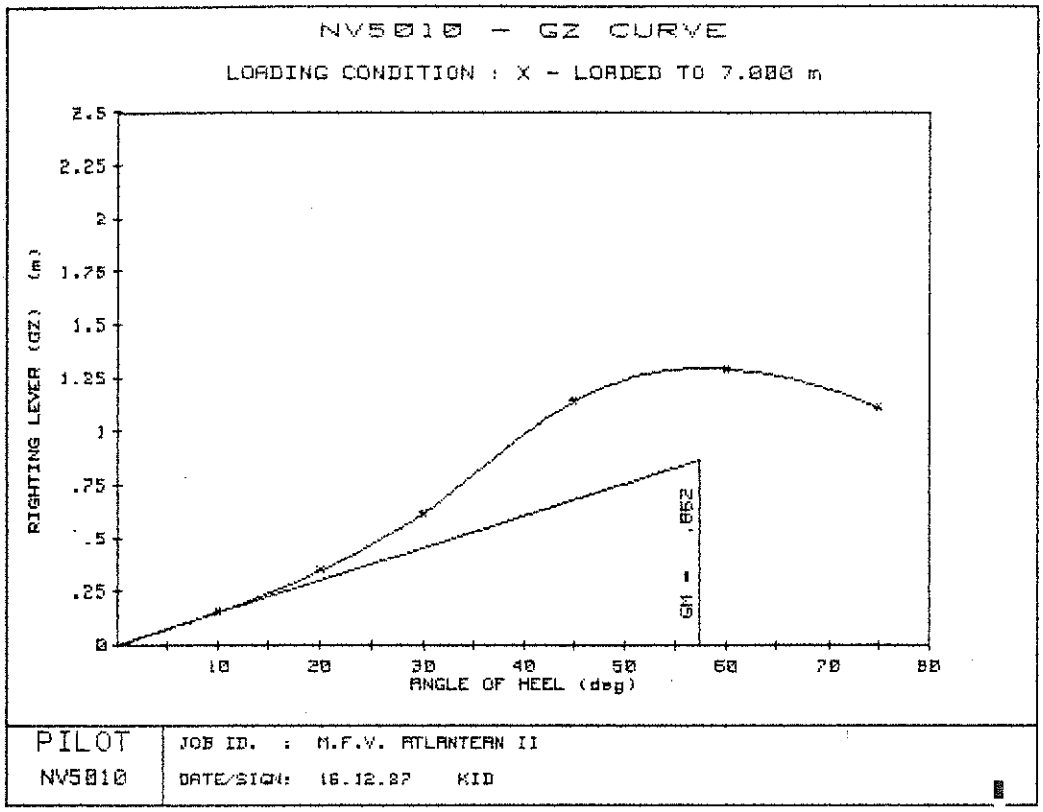
WATER DENSITY	:	1.0250 t/m3
VOLUME OF DISPLACEMENT	:	6000.176 m3
DRAUGHT AT AP (BASELINE)	:	7.346 m
--- '' --- FP (-- '' --)	:	6.655 m
--- '' --- LBP/2 (-- '' --)	:	7.000 m
DRAUGHT AT AP (UNDERSIDE KEEL)	:	7.666 m
--- '' --- FP (----- '' -----)	:	6.975 m
--- '' --- LBP/2 (----- '' -----)	:	7.320 m
TRIM OVER LBP (TRIM BY STERN IS POSITIVE) ...	:	.691 m

M E T A C E N T R I C H E I G H T

FREE SURFACE CORRECTION	:	.080 m
CORRECTED VCG	:	6.367 m
CORRECTED GMT	:	.862 m

S T A B I L I T Y L E V E R S

ANGLE OF HEEL (Deg)	RIGHTING LEVER GZ (m)	RIGHTING LEVER KY (m)
0.0	-0.000	0.000
10.0	.156	1.262
20.0	.348	2.526
30.0	.617	3.800
40.0	.983	5.076
50.0	1.241	6.118
60.0	1.291	6.805
70.0	1.197	7.179
75.0	1.109	7.258
58.0 (MAX GZ)	1.295	6.694



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

AREAS UNDER GZ-CURVE

0 - 58.0 (MAX GZ)	:	.653	m*Rad
0 - 15.0	:	.032	m*Rad
0 - 20.0	:	.057	m*Rad
0 - 30.0	:	.140	m*Rad
0 - 40.0	:	.279	m*Rad
30 - 40.0	:	.139	m*Rad

HYDROSTATIC TABLES

PILOT

Det norske Veritas program system for desktop computers

NV5001

HYDROSTATICS & INTACT STABILITY

PROGRAM VERSION : 01/86 Rev. 1

CURRENT NV5000 MODEL NUMBER . . . . : 1
CURRENT NV5001 MODEL NUMBER . . . . : 1

IDENTIFICATION

ID. : KLEVEN LØLAND YARD NO. 99
DATE . . . . . : 24.09.87
SIGNATURE . . . . . : KID

UNIT DEFINITIONS

LENGTH UNIT . . . . . : metres [m]
LENGTH UNIT CONVERSION FACTOR . . . . . : 1.0000 [m/m]

WEIGHT UNIT . . . . . : tonnes [t]
WEIGHT UNIT CONVERSION FACTOR . . . . . : 1.0000 [t/t]

PRINCIPAL DATA

LENGTH BETWEEN PERPENDICULARS	:	81.000 m
BREADTH MOULDED	:	15.000 m
DEPTH MOULDED	:	13.000 m
DESIGN DRAUGHT	:	7.000 m
DIST. FROM ORIGIN TO AP	:	0.000 m

AXIS DEFINITION

POSITIVE DIRECTIONS ARE: X TO STARBOARD — POSITIVE TRIM BY THE STERN
Y FORWARD — POSITIVE HEEL TO STARBOARD
Z UPWARDS

REFERENCES

DEFINITION OF GLOBAL ORIGIN

TRANSVERSE....: CL
LONGITUDINAL..: AP (# 0)
VERTICAL.....: BL

OUTPUT REFERENCE POINT (RFP), DISTANCE FROM GLOBAL ORIGIN

TRANSVERSE....: 0.000 m : CL
LONGITUDINAL..: 40.500 m : AMIDSHIPS
VERTICAL.....: 0.000 m : BL

DRAUGHT EXTREME (above RFP):

VERTICAL.....: -.320 m : U.S. OF KEEL AMIDSHIPS

POSITION OF MAX. SECTION (fwd of RFP):

LONGITUDINAL..: 0.000 m

ABBREVIATIONS

1	DRAUGHT EXTREME .:	Extreme draught at RFP.
2	DRAUGHT RFP .....:	Draught above RFP.
3	TRIM .....:	Trim to stern in [m] .
4	DISPL TOTAL SW ..:	Total displacement in seawater. (1.025 t/m3)
5	DISPL TOTAL FW ..:	Total displacement in freshwater. (1 t/m3)
6	DISPL MLD .....:	Moulded volume of displacement.
7	TCF SBD OF RFP ..:	Transv. centre of flotation to starboard of RFP.
8	LCF FWD OF RFP ..:	Long. centre of flotation forward of RFP.
9	TCB SBD OF RFP ..:	Transv. centre of bouyancy to starboard of RFP.
10	LCB FWD OF RFP ..:	Long. centre of bouyancy forward of RFP.
11	VCB ABOVE RFP ...:	Vert. centre of bouyancy above RFP.
12	KMT .....:	Position of transverse metacentre above RFP.
13	KML .....:	Position of longitudinal metacentre above RFP.
14	IT .....:	Transv. moment of inertia about neutral axis.
15	IL .....:	Long. moment of inertia about neutral axis.
16	MCT SW .....:	Moment to change trim one cm in seawater.
18	TPM SW .....:	Force to change draught one cm in seawater.
23	WPA .....:	Waterplane area.
24	WSA .....:	Projected wetted surface area.
25	CB .....:	Block coefficient = $\frac{\text{Displacement moulded}}{\text{Lbp*Draught(RFP)*Br.mld}}$
26	CM .....:	Max section coefficient = $\frac{\text{Max sectional area}}{\text{Draught(RFP)*Br.mld}}$
27	CP .....:	CB/CM
28	CW .....:	Waterplane area coefficient = $\frac{\text{Waterplane area}}{\text{Lbp*Br.mld}}$

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : -2.000 [m]		
1 DRAUGHT EXTREME ...[m]:	3.200	3.400	3.600	3.800	4.000
3 DRAUGHT RFP .....[m]:	2.880	3.080	3.280	3.480	3.680
4 DISP TOTAL SW .....[t]:	1942.25	2115.36	2290.26	2467.15	2646.75
5 DISP TOTAL FW .....[t]:	1894.87	2063.76	2234.40	2406.97	2582.19
6 DISP MLD .....[m3]:	1883.07	2051.56	2221.81	2393.97	2568.76
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	2.254	2.140	2.017	1.842	1.570
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	5.265	5.014	4.798	4.597	4.404
11 VCB ABOVE RFP .....[m]:	1.737	1.844	1.950	2.057	2.163
12 KMT .....[m]:	8.452	8.172	7.927	7.717	7.545
13 KML .....[m]:	135.855	128.291	121.055	115.802	111.967
14 IT .....[m4]:	12643.8	12986.5	13274.9	13550.0	13829.5
15 IL .....[m4]:	252624	258843	265169	272408	282021
16 MCT SW .....[tm/cm]:	31.968	32.755	33.555	34.471	35.688
18 TPM SW .....[t/cm]:	8.576	8.680	8.785	8.892	9.020
23 WPA .....[m2]:	836.641	846.840	857.051	867.550	879.987
24 WSA .....[m2]:	1186.49	1224.60	1262.83	1301.88	1343.37
25 CB .....:	.5381	.5482	.5575	.5662	.5745
26 CP .....:	.6272	.6321	.6369	.6416	.6463
27 CM .....:	.8580	.8672	.8753	.8825	.8889
28 CW .....:	.6886	.6970	.7054	.7140	.7243

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : -2.000 [m]		
1 DRAUGHT EXTREME ...[m]:	4.200	4.400	4.600	4.800	5.000
3 DRAUGHT RFP .....[m]:	3.880	4.080	4.280	4.480	4.680
4 DISP TOTAL SW .....[t]:	2828.91	3013.28	3200.10	3389.08	3580.18
5 DISP TOTAL FW .....[t]:	2759.91	2939.79	3122.05	3306.42	3492.86
6 DISP MLD .....[m3]:	2746.04	2925.50	3107.34	3291.30	3477.31
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	1.298	1.036	.795	.551	.290
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	4.217	4.035	3.857	3.683	3.514
11 VCB ABOVE RFP .....[m]:	2.270	2.377	2.484	2.591	2.698
12 KMT .....[m]:	7.410	7.299	7.208	7.132	7.071
13 KML .....[m]:	108.504	105.167	101.928	99.396	97.225
14 IT .....[m4]:	14112.2	14401.0	14679.5	14944.8	15206.5
15 IL .....[m4]:	291585	300683	309265	318369	328665
16 MCT SW .....[tm/cm]:	36.898	38.049	39.135	40.287	41.590
18 TPM SW .....[t/cm]:	9.147	9.265	9.374	9.485	9.603
23 WPA .....[m2]:	892.433	903.947	914.534	925.390	936.923
24 WSA .....[m2]:	1384.89	1425.65	1465.26	1505.14	1545.71
25 CB .....:	.5825	.5902	.5975	.6047	.6115
26 CP .....:	.6511	.6559	.6607	.6654	.6701
27 CM .....:	.8946	.8998	.9045	.9087	.9126
28 CW .....:	.7345	.7440	.7527	.7616	.7711

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : -2.000 [m]		
1 DRAUGHT EXTREME ...[m]:	5.200	5.400	5.600	5.800	6.000
3 DRAUGHT RFP .....[m]:	4.880	5.080	5.280	5.480	5.680
4 DISP TOTAL SW .....[t]:	3773.61	3969.57	4168.37	4370.16	4574.71
5 DISP TOTAL FW .....[t]:	3681.57	3872.75	4066.71	4263.57	4463.13
6 DISP MLD .....[m3]:	3665.62	3856.37	4049.87	4246.31	4445.45
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	.079	-.184	-.595	-.827	-1.072
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	3.349	3.183	3.017	2.850	2.683
11 VCB ABOVE RFP .....[m]:	2.805	2.913	3.021	3.129	3.238
12 KMT .....[m]:	7.025	6.992	6.971	6.960	6.957
13 KML .....[m]:	95.048	93.402	93.800	92.799	92.172
14 IT .....[m4]:	15468.7	15731.8	15998.0	16266.5	16534.7
15 IL .....[m4]:	337869	349310	367659	380718	395377
16 MCT SW .....[tm/cm]:	42.755	44.203	46.525	48.177	50.032
18 TPM SW .....[t/cm]:	9.709	9.833	10.007	10.135	10.271
23 WPA .....[m2]:	947.23	959.30	976.29	988.75	1002.04
24 WSA .....[m2]:	1585.15	1625.29	1668.21	1713.41	1757.58
25 CB .....:	.6182	.6248	.6313	.6378	.6442
26 CP .....:	.6748	.6795	.6843	.6892	.6941
27 CM .....:	.9162	.9195	.9226	.9254	.9280
28 CW .....:	.7796	.7895	.8035	.8138	.8247

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : -2.000 [m]		
1 DRAUGHT EXTREME ...[m]:	6.200	6.400	6.600	6.800	7.000
3 DRAUGHT RFP .....[m]:	5.880	6.080	6.280	6.480	6.680
4 DISP TOTAL SW .....[t]:	4782.17	4993.00	5207.21	5424.02	5642.94
5 DISP TOTAL FW .....[t]:	4665.54	4871.22	5080.20	5291.72	5505.31
6 DISP MLD .....[m3]:	4647.41	4852.66	5061.19	5272.23	5485.34
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-1.338	-1.555	-1.802	-2.071	-2.341
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	2.517	2.349	2.181	2.016	1.859
11 VCB ABOVE RFP .....[m]:	3.347	3.457	3.568	3.678	3.789
12 KMT .....[m]:	6.963	6.977	7.000	7.028	7.058
13 KML .....[m]:	91.830	91.391	91.128	91.457	91.915
14 IT .....[m4]:	16802.0	17082.6	17370.6	17659.2	17931.4
15 IL .....[m4]:	411216	426794	443082	462791	483394
16 MCT SW .....[tm/cm]:	52.037	54.008	56.069	58.563	61.170
18 TPM SW .....[t/cm]:	10.415	10.554	10.701	10.861	11.022
23 WPA .....[m2]:	1016.13	1029.61	1043.97	1059.58	1075.33
24 WSA .....[m2]:	1800.23	1841.65	1884.76	1929.47	1973.71
25 CB .....:	.6505	.6569	.6633	.6696	.6759
26 CP .....:	.6991	.7043	.7095	.7147	.7199
27 CM .....:	.9305	.9328	.9349	.9369	.9388
28 CW .....:	.8363	.8474	.8592	.8721	.8850

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : -2.000 [m]		
1 DRAUGHT EXTREME ...[m]:	7.200	7.400	7.600	7.800	8.000
3 DRAUGHT RFP .....[m]:	6.880	7.080	7.280	7.480	7.680
4 DISP TOTAL SW .....[t]:	5864.98	6091.08	6320.21	6552.09	6786.35
5 DISP TOTAL FW .....[t]:	5721.93	5942.52	6166.06	6392.28	6620.83
6 DISP MLD .....[m3]:	5701.48	5921.59	6144.66	6370.43	6598.55
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-2.609	-2.870	-3.082	-3.207	-3.290
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	1.701	1.540	1.382	1.227	1.079
11 VCB ABOVE RFP .....[m]:	3.900	4.012	4.125	4.238	4.351
12 KMT .....[m]:	7.095	7.139	7.186	7.236	7.288
13 KML .....[m]:	92.437	93.037	93.296	92.957	92.414
14 IT .....[m4]:	18217.1	18513.0	18809.1	19102.9	19379.9
15 IL .....[m4]:	504846	527221	547796	565224	581095
16 MCT SW .....[tm/cm]:	63.885	66.716	69.320	71.525	73.534
18 TPM SW .....[t/cm]:	11.186	11.354	11.507	11.636	11.753
23 WPA .....[m2]:	1091.27	1107.66	1122.60	1135.20	1146.62
24 WSA .....[m2]:	2017.85	2061.67	2104.44	2144.99	2184.63
25 CB .....:	.6821	.6884	.6947	.7010	.7071
26 CP .....:	.7252	.7306	.7360	.7415	.7469
27 CM .....:	.9406	.9422	.9438	.9453	.9468
28 CW .....:	.8982	.9117	.9240	.9343	.9437

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 0.000 [m]		
1 DRAUGHT EXTREME ...[m]:	3.200	3.400	3.600	3.800	4.000
3 DRAUGHT RFP .....[m]:	2.880	3.080	3.280	3.480	3.680
4 DISP TOTAL SW .....[t]:	1904.46	2080.06	2258.95	2440.65	2625.09
5 DISP TOTAL FW .....[t]:	1858.01	2029.32	2203.85	2381.12	2561.06
6 DISP MLD .....[m3]:	1846.17	2017.05	2191.15	2367.98	2547.49
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	1.083	.903	.702	.448	.250
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	1.931	1.852	1.766	1.676	1.585
11 VCB ABOVE RFP .....[m]:	1.672	1.783	1.894	2.005	2.116
12 KMT .....[m]:	8.695	8.380	8.122	7.903	7.718
13 KML .....[m]:	142.187	135.618	130.633	126.330	122.051
14 IT .....[m4]:	12967.7	13307.6	13645.3	13967.6	14271.4
15 IL .....[m4]:	259460	270295	281679	294416	305248
16 MCT SW .....[tm/cm]:	32.833	34.204	35.645	37.256	38.627
18 TPM SW .....[t/cm]:	8.687	8.834	8.984	9.139	9.271
23 WPA .....[m2]:	847.491	861.849	876.507	891.632	904.506
24 WSA .....[m2]:	1200.58	1241.81	1283.33	1325.40	1365.92
25 CB .....:	.5276	.5390	.5498	.5600	.5698
26 CP .....:	.6149	.6215	.6281	.6346	.6410
27 CM .....:	.8580	.8672	.8753	.8825	.8889
28 CW .....:	.6975	.7093	.7214	.7339	.7444

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]			TRIM : 0.000 [m]	
1 DRAUGHT EXTREME ...[m]:	4.200	4.400	4.600	4.800	5.000
3 DRAUGHT RFP .....[m]:	3.880	4.080	4.280	4.480	4.680
4 DISP TOTAL SW .....[t]:	2812.19	3002.13	3194.92	3390.79	3589.72
5 DISP TOTAL FW .....[t]:	2743.60	2928.91	3117.00	3308.09	3502.17
6 DISP MLD .....[m3]:	2729.62	2914.50	3102.13	3292.78	3486.43
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	.050	-.198	-.598	-.956	-1.220
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	1.490	1.389	1.282	1.165	1.039
11 VCB ABOVE RFP .....[m]:	2.227	2.338	2.449	2.561	2.673
12 KMT .....[m]:	7.564	7.438	7.334	7.252	7.188
13 KML .....[m]:	117.894	114.731	113.386	111.622	108.954
14 IT .....[m4]:	14568.5	14863.5	15153.9	15445.3	15739.6
15 IL .....[m4]:	316049	327669	344098	359065	370572
16 MCT SW .....[tm/cm]:	39.994	41.464	43.543	45.437	46.893
18 TPM SW .....[t/cm]:	9.401	9.535	9.703	9.857	9.982
23 WPA .....[m2]:	917.203	930.222	946.644	961.641	973.895
24 WSA .....[m2]:	1406.11	1446.90	1491.07	1535.36	1579.60
25 CB .....:	.5790	.5879	.5965	.6049	.6131
26 CP .....:	.6472	.6534	.6595	.6657	.6718
27 CM .....:	.8946	.8998	.9045	.9087	.9126
28 CW .....:	.7549	.7656	.7791	.7915	.8016

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]			TRIM : 0.000 [m]	
1 DRAUGHT EXTREME ...[m]:	5.200	5.400	5.600	5.800	6.000
3 DRAUGHT RFP .....[m]:	4.880	5.080	5.280	5.480	5.680
4 DISP TOTAL SW .....[t]:	3791.38	3996.45	4204.64	4415.07	4628.03
5 DISP TOTAL FW .....[t]:	3698.90	3898.97	4102.08	4307.39	4515.15
6 DISP MLD .....[m3]:	3682.72	3882.35	4085.02	4289.84	4497.11
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-1.566	-1.901	-2.217	-2.609	-3.002
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	.909	.766	.616	.467	.317
11 VCB ABOVE RFP .....[m]:	2.786	2.899	3.012	3.125	3.238
12 KMT .....[m]:	7.137	7.103	7.082	7.068	7.063
13 KML .....[m]:	107.325	105.589	103.761	103.129	102.657
14 IT .....[m4]:	16027.8	16320.8	16627.1	16914.2	17202.0
15 IL .....[m4]:	384918	398658	411536	429038	447109
16 MCT SW .....[tm/cm]:	48.709	50.447	52.077	54.292	56.579
18 TPM SW .....[t/cm]:	10.126	10.264	10.394	10.549	10.704
23 WPA .....[m2]:	987.86	1001.35	1014.09	1029.22	1044.33
24 WSA .....[m2]:	1623.14	1665.89	1707.96	1753.56	1798.72
25 CB .....:	.6211	.6290	.6368	.6443	.6516
26 CP .....:	.6779	.6841	.6902	.6962	.7022
27 CM .....:	.9162	.9195	.9226	.9254	.9280
28 CW .....:	.8131	.8242	.8346	.8471	.8595

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 0.000 [m]		
1 DRAUGHT EXTREME ...[m]:	6.200	6.400	6.600	6.800	7.000
3 DRAUGHT RFP .....[m]:	5.880	6.080	6.280	6.480	6.680
4 DISP TOTAL SW .....[t]:	4844.18	5063.29	5285.40	5509.99	5736.80
5 DISP TOTAL FW .....[t]:	4726.03	4939.79	5156.49	5375.60	5595.87
6 DISP MLD .....[m3]:	4707.51	4920.80	5137.03	5355.71	5576.55
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-3.376	-3.735	-4.020	-4.193	-4.341
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	.160	-.003	-.165	-.326	-.483
11 VCB ABOVE RFP .....[m]:	3.352	3.466	3.580	3.694	3.808
12 KMT .....[m]:	7.067	7.080	7.099	7.122	7.148
13 KML .....[m]:	102.170	101.913	101.130	99.901	98.682
14 IT .....[m4]:	17491.9	17786.3	18079.5	18360.5	18624.3
15 IL .....[m4]:	465191	484203	501379	515278	529190
16 MCT SW .....[tm/cm]:	58.867	61.273	63.446	65.205	66.965
18 TPM SW .....[t/cm]:	10.857	11.010	11.152	11.263	11.373
23 WPA .....[m2]:	1059.24	1074.11	1088.01	1098.85	1109.56
24 WSA .....[m2]:	1842.55	1886.12	1927.99	1967.74	2007.25
25 CB .....:	.6589	.6661	.6732	.6802	.6871
26 CP .....:	.7082	.7142	.7201	.7261	.7319
27 CM .....:	.9305	.9328	.9349	.9369	.9388
28 CW .....:	.8718	.8840	.8955	.9044	.9132

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 0.000 [m]		
1 DRAUGHT EXTREME ...[m]:	7.200	7.400	7.600	7.800	8.000
3 DRAUGHT RFP .....[m]:	6.880	7.080	7.280	7.480	7.680
4 DISP TOTAL SW .....[t]:	5965.69	6196.58	6429.36	6663.92	6900.09
5 DISP TOTAL FW .....[t]:	5820.18	6045.45	6272.54	6501.38	6731.80
6 DISP MLD .....[m3]:	5799.43	6024.27	6250.94	6479.37	6709.38
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-4.446	-4.516	-4.572	-4.595	-4.573
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-.633	-.777	-.914	-1.043	-1.164
11 VCB ABOVE RFP .....[m]:	3.923	4.037	4.151	4.265	4.378
12 KMT .....[m]:	7.177	7.210	7.247	7.286	7.327
13 KML .....[m]:	97.426	96.089	94.880	93.590	92.201
14 IT .....[m4]:	18874.5	19117.6	19352.7	19575.7	19783.6
15 IL .....[m4]:	542108	554535	566966	578983	589261
16 MCT SW .....[tm/cm]:	68.600	70.173	71.746	73.266	74.567
18 TPM SW .....[t/cm]:	11.474	11.569	11.663	11.750	11.826
23 WPA .....[m2]:	1119.42	1128.68	1137.84	1146.37	1153.78
24 WSA .....[m2]:	2046.01	2084.40	2122.77	2160.79	2197.78
25 CB .....:	.6938	.7003	.7067	.7129	.7190
26 CP .....:	.7376	.7432	.7488	.7542	.7595
27 CM .....:	.9406	.9422	.9438	.9453	.9468
28 CW .....:	.9213	.9290	.9365	.9435	.9496

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 2.000 [m]		
1 DRAUGHT EXTREME ...[m]:	3.200	3.400	3.600	3.800	4.000
3 DRAUGHT RFP .....[m]:	2.880	3.080	3.280	3.480	3.680
4 DISP TOTAL SW .....[t]:	1900.11	2079.87	2263.06	2450.05	2640.71
5 DISP TOTAL FW .....[t]:	1853.77	2029.14	2207.87	2390.29	2576.30
6 DISP MLD .....[m3]:	1841.80	2016.73	2195.00	2376.97	2562.53
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-.592	-.758	-1.046	-1.380	-1.615
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-1.640	-1.566	-1.522	-1.504	-1.510
11 VCB ABOVE RFP .....[m]:	1.713	1.825	1.937	2.050	2.164
12 KMT .....[m]:	9.000	8.654	8.367	8.128	7.937
13 KML .....[m]:	149.697	144.101	140.312	137.751	133.999
14 IT .....[m4]:	13422.9	13771.5	14112.2	14448.8	14795.7
15 IL .....[m4]:	272479	287404	303410	322558	337709
16 MCT SW .....[tm/cm]:	34.480	36.369	38.394	40.817	42.735
18 TPM SW .....[t/cm]:	8.872	9.050	9.235	9.434	9.602
23 WPA .....[m2]:	865.583	882.963	900.934	920.428	936.761
24 WSA .....[m2]:	1222.81	1264.08	1308.63	1353.89	1399.35
25 CB .....:	.5263	.5389	.5508	.5622	.5731
26 CP .....:	.6134	.6214	.6292	.6370	.6448
27 CM .....:	.8580	.8672	.8753	.8825	.8889
28 CW .....:	.7124	.7267	.7415	.7576	.7710

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 2.000 [m]		
1 DRAUGHT EXTREME ...[m]:	4.200	4.400	4.600	4.800	5.000
3 DRAUGHT RFP .....[m]:	3.880	4.080	4.280	4.480	4.680
4 DISP TOTAL SW .....[t]:	2834.91	3032.96	3235.51	3440.81	3648.57
5 DISP TOTAL FW .....[t]:	2765.76	2958.99	3156.60	3356.89	3559.59
6 DISP MLD .....[m3]:	2751.55	2944.31	3141.44	3341.25	3543.45
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-1.890	-2.205	-2.529	-2.872	-3.248
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-1.536	-1.581	-1.652	-1.728	-1.806
11 VCB ABOVE RFP .....[m]:	2.278	2.393	2.509	2.625	2.741
12 KMT .....[m]:	7.781	7.651	7.549	7.462	7.389
13 KML .....[m]:	130.956	128.727	126.641	125.026	123.877
14 IT .....[m4]:	15140.4	15481.8	15827.1	16162.5	16467.1
15 IL .....[m4]:	354154	371981	390006	408895	429237
16 MCT SW .....[tm/cm]:	44.816	47.072	49.353	51.743	54.317
18 TPM SW .....[t/cm]:	9.774	9.954	10.130	10.307	10.482
23 WPA .....[m2]:	953.58	971.08	988.34	1005.53	1022.66
24 WSA .....[m2]:	1444.50	1488.87	1534.22	1579.83	1625.62
25 CB .....:	.5837	.5939	.6041	.6138	.6232
26 CP .....:	.6524	.6601	.6679	.6755	.6828
27 CM .....:	.8946	.8998	.9045	.9087	.9126
28 CW .....:	.7848	.7992	.8134	.8276	.8417

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 2.000 [m]		
1 DRAUGHT EXTREME ...[m]:	5.200	5.400	5.600	5.800	6.000
3 DRAUGHT RFP .....[m]:	4.880	5.080	5.280	5.480	5.680
4 DISP TOTAL SW .....[t]:	3860.38	4076.06	4294.39	4515.21	4738.25
5 DISP TOTAL FW .....[t]:	3766.22	3976.64	4189.65	4405.08	4622.68
6 DISP MLD .....[m3]:	3749.59	3959.53	4172.08	4387.07	4604.24
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-3.647	-4.025	-4.310	-4.535	-4.716
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-1.903	-2.017	-2.134	-2.253	-2.371
11 VCB ABOVE RFP .....[m]:	2.858	2.976	3.094	3.211	3.329
12 KMT .....[m]:	7.336	7.301	7.275	7.259	7.247
13 KML .....[m]:	122.922	121.701	119.537	116.914	114.160
14 IT .....[m4]:	16793.9	17120.5	17444.6	17755.3	18039.9
15 IL .....[m4]:	450129	470143	485794	498913	510244
16 MCT SW .....[tm/cm]:	56.961	59.493	61.474	63.134	64.568
18 TPM SW .....[t/cm]:	10.660	10.831	10.966	11.082	11.183
23 WPA .....[m2]:	1039.97	1056.73	1069.88	1081.22	1091.00
24 WSA .....[m2]:	1670.77	1714.69	1756.40	1796.54	1835.64
25 CB .....:	.6324	.6415	.6503	.6589	.6672
26 CP .....:	.6902	.6977	.7049	.7120	.7189
27 CM .....:	.9162	.9195	.9226	.9254	.9280
28 CW .....:	.8559	.8697	.8806	.8899	.8979

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 2.000 [m]		
1 DRAUGHT EXTREME ...[m]:	6.200	6.400	6.600	6.800	7.000
3 DRAUGHT RFP .....[m]:	5.880	6.080	6.280	6.480	6.680
4 DISP TOTAL SW .....[t]:	4963.19	5189.82	5418.00	5647.53	5878.31
5 DISP TOTAL FW .....[t]:	4842.13	5063.24	5285.85	5509.78	5734.93
6 DISP MLD .....[m3]:	4823.27	5043.94	5266.15	5489.67	5714.42
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-4.880	-5.034	-5.165	-5.244	-5.298
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-2.490	-2.605	-2.718	-2.826	-2.930
11 VCB ABOVE RFP .....[m]:	3.446	3.562	3.678	3.793	3.908
12 KMT .....[m]:	7.240	7.240	7.245	7.254	7.267
13 KML .....[m]:	111.367	108.612	105.855	103.091	100.413
14 IT .....[m4]:	18301.4	18549.8	18783.3	18996.9	19190.7
15 IL .....[m4]:	520545	529886	538034	545114	551445
16 MCT SW .....[tm/cm]:	65.871	67.053	68.085	68.980	69.782
18 TPM SW .....[t/cm]:	11.273	11.356	11.428	11.491	11.546
23 WPA .....[m2]:	1099.85	1107.89	1114.95	1121.03	1126.42
24 WSA .....[m2]:	1874.34	1912.87	1950.85	1987.73	2024.19
25 CB .....:	.6751	.6828	.6902	.6973	.7041
26 CP .....:	.7256	.7320	.7382	.7442	.7500
27 CM .....:	.9305	.9328	.9349	.9369	.9388
28 CW .....:	.9052	.9118	.9177	.9227	.9271

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 2.000 [m]		
1 DRAUGHT EXTREME ...[m]:	7.200	7.400	7.600	7.800	8.000
3 DRAUGHT RFP .....[m]:	6.880	7.080	7.280	7.480	7.680
4 DISP TOTAL SW .....[t]:	6110.05	6342.70	6576.40	6811.13	7046.76
5 DISP TOTAL FW .....[t]:	5961.02	6188.00	6416.00	6645.00	6874.89
6 DISP MLD .....[m3]:	5940.11	6166.69	6394.30	6622.91	6852.40
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-5.325	-5.327	-5.301	-5.249	-5.187
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-3.028	-3.120	-3.205	-3.284	-3.356
11 VCB ABOVE RFP .....[m]:	4.023	4.136	4.250	4.362	4.475
12 KMT .....[m]:	7.283	7.304	7.326	7.353	7.383
13 KML .....[m]:	97.876	95.518	93.319	91.247	89.345
14 IT .....[m4]:	19368.7	19531.5	19674.9	19805.0	19928.8
15 IL .....[m4]:	557523	563524	569521	575527	581658
16 MCT SW .....[tm/cm]:	70.551	71.310	72.069	72.829	73.605
18 TPM SW .....[t/cm]:	11.597	11.646	11.693	11.739	11.785
23 WPA .....[m2]:	1131.44	1136.24	1140.80	1145.30	1149.76
24 WSA .....[m2]:	2060.32	2096.22	2131.90	2167.54	2203.15
25 CB .....:	.7106	.7169	.7229	.7287	.7344
26 CP .....:	.7555	.7608	.7659	.7709	.7756
27 CM .....:	.9406	.9422	.9438	.9453	.9468
28 CW .....:	.9312	.9352	.9389	.9426	.9463

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 4.000 [m]		
1 DRAUGHT EXTREME ...[m]:	3.200	3.400	3.600	3.800	4.000
3 DRAUGHT RFP .....[m]:	2.880	3.080	3.280	3.480	3.680
4 DISP TOTAL SW .....[t]:	1945.16	2130.36	2320.68	2515.94	2715.56
5 DISP TOTAL FW .....[t]:	1897.72	2078.40	2264.08	2454.58	2649.32
6 DISP MLD .....[m3]:	1885.50	2065.71	2250.89	2440.89	2635.12
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-3.182	-3.410	-3.633	-3.818	-4.152
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-5.328	-5.178	-5.073	-4.996	-4.942
11 VCB ABOVE RFP .....[m]:	1.879	1.991	2.104	2.219	2.335
12 KMT .....[m]:	9.274	8.941	8.667	8.437	8.240
13 KML .....[m]:	156.477	152.904	151.373	150.976	149.384
14 IT .....[m4]:	13944.1	14357.8	14769.0	15176.6	15557.8
15 IL .....[m4]:	291509	311781	335947	363094	387483
16 MCT SW .....[tm/cm]:	36.888	39.454	42.512	45.947	49.033
18 TPM SW .....[t/cm]:	9.121	9.350	9.592	9.855	10.081
23 WPA .....[m2]:	889.856	912.178	935.797	961.440	983.553
24 WSA .....[m2]:	1272.94	1316.50	1359.84	1403.32	1449.55
25 CB .....:	.5388	.5520	.5648	.5773	.5894
26 CP .....:	.6280	.6365	.6452	.6541	.6630
27 CM .....:	.8580	.8672	.8753	.8825	.8889
28 CW .....:	.7324	.7508	.7702	.7913	.8095

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 4.000 [m]		
1 DRAUGHT EXTREME ...[m]:	4.200	4.400	4.600	4.800	5.000
3 DRAUGHT RFP .....[m]:	3.880	4.080	4.280	4.480	4.680
4 DISP TOTAL SW .....[t]:	2919.61	3127.72	3339.44	3554.31	3771.81
5 DISP TOTAL FW .....[t]:	2848.40	3051.44	3257.99	3467.62	3679.82
6 DISP MLD .....[m3]:	2833.69	3036.24	3242.33	3451.51	3663.26
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-4.499	-4.816	-5.031	-5.182	-5.315
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-4.918	-4.921	-4.941	-4.970	-5.004
11 VCB ABOVE RFP .....[m]:	2.453	2.571	2.690	2.808	2.927
12 KMT .....[m]:	8.076	7.945	7.838	7.748	7.670
13 KML .....[m]:	147.611	145.504	142.160	138.540	134.902
14 IT .....[m4]:	15936.0	16317.0	16690.2	17049.2	17377.9
15 IL .....[m4]:	411260	433869	452447	468483	483522
16 MCT SW .....[tm/cm]:	52.042	54.903	57.254	59.283	61.186
18 TPM SW .....[t/cm]:	10.294	10.493	10.658	10.801	10.933
23 WPA .....[m2]:	1004.28	1023.71	1039.83	1053.78	1066.59
24 WSA .....[m2]:	1496.28	1541.13	1583.21	1623.92	1663.97
25 CB .....:	.6011	.6125	.6235	.6341	.6442
26 CP .....:	.6719	.6807	.6894	.6978	.7059
27 CM .....:	.8946	.8998	.9045	.9087	.9126
28 CW .....:	.8266	.8426	.8558	.8673	.8778

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 4.000 [m]		
1 DRAUGHT EXTREME ...[m]:	5.200	5.400	5.600	5.800	6.000
3 DRAUGHT RFP .....[m]:	4.880	5.080	5.280	5.480	5.680
4 DISP TOTAL SW .....[t]:	3991.79	4213.96	4437.98	4663.80	4891.01
5 DISP TOTAL FW .....[t]:	3894.43	4111.18	4329.74	4550.04	4771.72
6 DISP MLD .....[m3]:	3877.45	4093.77	4311.92	4531.81	4753.09
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-5.399	-5.475	-5.543	-5.576	-5.586
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-5.043	-5.082	-5.122	-5.161	-5.198
11 VCB ABOVE RFP .....[m]:	3.044	3.162	3.279	3.395	3.510
12 KMT .....[m]:	7.604	7.549	7.504	7.468	7.439
13 KML .....[m]:	131.061	127.334	123.800	120.100	116.443
14 IT .....[m4]:	17679.8	17959.2	18220.0	18458.0	18672.4
15 IL .....[m4]:	496285	508287	519645	528993	536730
16 MCT SW .....[tm/cm]:	62.802	64.320	65.758	66.940	67.920
18 TPM SW .....[t/cm]:	11.043	11.146	11.241	11.320	11.386
23 WPA .....[m2]:	1077.40	1087.38	1096.69	1104.38	1110.84
24 WSA .....[m2]:	1702.69	1741.15	1779.41	1816.60	1853.02
25 CB .....:	.6540	.6633	.6721	.6806	.6887
26 CP .....:	.7138	.7213	.7286	.7355	.7422
27 CM .....:	.9162	.9195	.9226	.9254	.9280
28 CW .....:	.8868	.8950	.9026	.9090	.9143

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 4.000 [m]		
1 DRAUGHT EXTREME ...[m]:	6.200	6.400	6.600	6.800	7.000
3 DRAUGHT RFP .....[m]:	5.880	6.080	6.280	6.480	6.680
4 DISP TOTAL SW .....[t]:	5119.38	5348.93	5579.48	5810.82	6042.94
5 DISP TOTAL FW .....[t]:	4994.52	5218.47	5443.39	5669.09	5895.55
6 DISP MLD .....[m3]:	4975.49	5199.05	5423.58	5648.89	5874.96
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-5.589	-5.583	-5.570	-5.553	-5.531
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-5.232	-5.264	-5.294	-5.321	-5.347
11 VCB ABOVE RFP .....[m]:	3.625	3.739	3.852	3.965	4.077
12 KMT .....[m]:	7.416	7.401	7.390	7.385	7.385
13 KML .....[m]:	112.888	109.425	106.065	102.841	99.743
14 IT .....[m4]:	18865.4	19038.9	19189.3	19319.3	19433.7
15 IL .....[m4]:	543643	549474	554361	558552	562052
16 MCT SW .....[tm/cm]:	68.794	69.532	70.151	70.681	71.124
18 TPM SW .....[t/cm]:	11.445	11.496	11.540	11.577	11.609
23 WPA .....[m2]:	1116.61	1121.59	1125.83	1129.50	1132.62
24 WSA .....[m2]:	1889.20	1925.01	1960.57	1996.01	2031.35
25 CB .....:	.6964	.7038	.7108	.7175	.7239
26 CP .....:	.7485	.7545	.7603	.7658	.7711
27 CM .....:	.9305	.9328	.9349	.9369	.9388
28 CW .....:	.9190	.9231	.9266	.9296	.9322

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 4.000 [m]		
1 DRAUGHT EXTREME ...[m]:	7.200	7.400	7.600	7.800	8.000
3 DRAUGHT RFP .....[m]:	6.880	7.080	7.280	7.480	7.680
4 DISP TOTAL SW .....[t]:	6275.66	6508.89	6742.67	6976.96	7211.75
5 DISP TOTAL FW .....[t]:	6122.59	6350.14	6578.22	6806.79	7035.85
6 DISP MLD .....[m3]:	6101.61	6328.76	6556.44	6784.63	7013.31
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-5.514	-5.513	-5.485	-5.441	-5.390
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-5.370	-5.391	-5.410	-5.428	-5.443
11 VCB ABOVE RFP .....[m]:	4.188	4.299	4.409	4.519	4.628
12 KMT .....[m]:	7.390	7.401	7.416	7.436	7.460
13 KML .....[m]:	96.869	94.167	91.541	89.047	86.788
14 IT .....[m4]:	19537.4	19631.4	19714.3	19790.2	19863.8
15 IL .....[m4]:	565459	568739	571203	573587	576219
16 MCT SW .....[tm/cm]:	71.555	71.970	72.282	72.584	72.917
18 TPM SW .....[t/cm]:	11.641	11.671	11.695	11.718	11.741
23 WPA .....[m2]:	1135.68	1138.63	1140.93	1143.18	1145.49
24 WSA .....[m2]:	2066.89	2102.87	2138.27	2173.54	2208.80
25 CB .....:	.7299	.7357	.7412	.7465	.7516
26 CP .....:	.7760	.7808	.7854	.7897	.7939
27 CM .....:	.9406	.9422	.9438	.9453	.9468
28 CW .....:	.9347	.9371	.9390	.9409	.9428

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 6.000 [m]		
1 DRAUGHT EXTREME ...[m]:	3.200	3.400	3.600	3.800	4.000
3 DRAUGHT RFP .....[m]:	2.880	3.080	3.280	3.480	3.680
4 DISP TOTAL SW .....[t]:	2063.63	2259.04	2458.64	2661.64	2868.41
5 DISP TOTAL FW .....[t]:	2013.30	2203.94	2398.67	2596.72	2798.45
6 DISP MLD .....[m3]:	2000.54	2190.67	2384.92	2582.51	2783.79
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-6.442	-6.617	-6.733	-6.802	-6.824
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-9.177	-8.986	-8.835	-8.711	-8.608
11 VCB ABOVE RFP .....[m]:	2.195	2.308	2.422	2.536	2.651
12 KMT .....[m]:	9.565	9.256	8.996	8.769	8.573
13 KML .....[m]:	171.635	167.988	163.322	158.466	153.637
14 IT .....[m4]:	14746.3	15220.5	15676.7	16095.4	16485.6
15 IL .....[m4]:	338846	363205	383772	402782	419959
16 MCT SW .....[tm/cm]:	42.879	45.961	48.564	50.969	53.143
18 TPM SW .....[t/cm]:	9.632	9.875	10.078	10.259	10.419
23 WPA .....[m2]:	939.73	963.38	983.18	1000.86	1016.47
24 WSA .....[m2]:	1338.07	1383.11	1424.70	1464.26	1502.14
25 CB .....:	.5717	.5854	.5984	.6108	.6226
26 CP .....:	.6663	.6750	.6837	.6921	.7004
27 CM .....:	.8580	.8672	.8753	.8825	.8889
28 CW .....:	.7734	.7929	.8092	.8238	.8366

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 6.000 [m]		
1 DRAUGHT EXTREME ...[m]:	4.200	4.400	4.600	4.800	5.000
3 DRAUGHT RFP .....[m]:	3.880	4.080	4.280	4.480	4.680
4 DISP TOTAL SW .....[t]:	3078.26	3290.93	3506.76	3725.30	3945.64
5 DISP TOTAL FW .....[t]:	3003.18	3210.67	3421.23	3634.44	3849.40
6 DISP MLD .....[m3]:	2988.09	3195.15	3405.30	3618.10	3832.67
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-6.816	-6.769	-6.629	-6.525	-6.462
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-8.522	-8.443	-8.366	-8.291	-8.222
11 VCB ABOVE RFP .....[m]:	2.765	2.879	2.992	3.105	3.217
12 KMT .....[m]:	8.404	8.258	8.130	8.019	7.921
13 KML .....[m]:	148.987	145.051	141.451	137.381	132.710
14 IT .....[m4]:	16848.4	17185.7	17495.9	17777.6	18031.0
15 IL .....[m4]:	437101	454235	471238	486205	496380
16 MCT SW .....[tm/cm]:	55.312	57.480	59.632	61.526	62.814
18 TPM SW .....[t/cm]:	10.571	10.719	10.862	10.981	11.069
23 WPA .....[m2]:	1031.35	1045.75	1059.66	1071.33	1079.93
24 WSA .....[m2]:	1538.87	1574.60	1608.76	1644.15	1680.92
25 CB .....:	.6338	.6445	.6548	.6647	.6740
26 CP .....:	.7085	.7163	.7240	.7315	.7386
27 CM .....:	.8946	.8998	.9045	.9087	.9126
28 CW .....:	.8488	.8607	.8721	.8818	.8888

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 6.000 [m]		
1 DRAUGHT EXTREME ...[m]:	5.200	5.400	5.600	5.800	6.000
3 DRAUGHT RFP .....[m]:	4.880	5.080	5.280	5.480	5.680
4 DISP TOTAL SW .....[t]:	4167.55	4390.97	4615.85	4842.03	5069.29
5 DISP TOTAL FW .....[t]:	4065.90	4283.87	4503.27	4723.93	4945.65
6 DISP MLD .....[m3]:	4048.77	4266.34	4485.34	4705.62	4926.94
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-6.389	-6.310	-6.223	-6.130	-6.043
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-8.156	-8.094	-8.034	-7.977	-7.921
11 VCB ABOVE RFP .....[m]:	3.328	3.438	3.548	3.658	3.766
12 KMT .....[m]:	7.837	7.765	7.702	7.649	7.606
13 KML .....[m]:	128.316	124.082	120.070	116.225	112.732
14 IT .....[m4]:	18258.0	18457.1	18630.6	18780.5	18916.2
15 IL .....[m4]:	505952	514710	522657	529758	536745
16 MCT SW .....[tm/cm]:	64.025	65.133	66.139	67.037	67.921
18 TPM SW .....[t/cm]:	11.149	11.221	11.285	11.342	11.396
23 WPA .....[m2]:	1087.73	1094.75	1101.00	1106.50	1111.85
24 WSA .....[m2]:	1717.10	1753.01	1788.75	1824.33	1860.06
25 CB .....:	.6829	.6912	.6992	.7067	.7139
26 CP .....:	.7453	.7517	.7579	.7637	.7693
27 CM .....:	.9162	.9195	.9226	.9254	.9280
28 CW .....:	.8953	.9010	.9062	.9107	.9151

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 6.000 [m]		
1 DRAUGHT EXTREME ...[m]:	6.200	6.400	6.600	6.800	7.000
3 DRAUGHT RFP .....[m]:	5.880	6.080	6.280	6.480	6.680
4 DISP TOTAL SW .....[t]:	5297.49	5526.69	5756.77	5987.60	6219.16
5 DISP TOTAL FW .....[t]:	5168.28	5391.89	5616.36	5841.56	6067.48
6 DISP MLD .....[m3]:	5149.18	5372.39	5596.48	5821.29	6046.81
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-5.971	-5.877	-5.784	-5.692	-5.606
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-7.866	-7.813	-7.761	-7.710	-7.660
11 VCB ABOVE RFP .....[m]:	3.874	3.982	4.090	4.196	4.303
12 KMT .....[m]:	7.572	7.545	7.527	7.516	7.512
13 KML .....[m]:	109.449	106.225	103.097	100.152	97.345
14 IT .....[m4]:	19039.3	19143.1	19237.2	19325.8	19407.0
15 IL .....[m4]:	543585	549327	554113	558590	562578
16 MCT SW .....[tm/cm]:	68.787	69.514	70.119	70.686	71.190
18 TPM SW .....[t/cm]:	11.449	11.494	11.531	11.567	11.600
23 WPA .....[m2]:	1117.01	1121.32	1125.01	1128.52	1131.67
24 WSA .....[m2]:	1896.16	1931.62	1967.00	2002.35	2037.66
25 CB .....:	.7207	.7273	.7335	.7394	.7450
26 CP .....:	.7746	.7797	.7845	.7892	.7936
27 CM .....:	.9305	.9328	.9349	.9369	.9388
28 CW .....:	.9194	.9229	.9259	.9288	.9314

HYDROSTATICS (SPLINE)	HEEL : 0.000 [Deg]		TRIM : 6.000 [m]		
1 DRAUGHT EXTREME ...[m]:	7.200	7.400	7.600	7.800	8.000
3 DRAUGHT RFP .....[m]:	6.880	7.080	7.280	7.480	7.680
4 DISP TOTAL SW .....[t]:	6451.37	6684.15	6917.58	7151.06	7384.05
5 DISP TOTAL FW .....[t]:	6294.02	6521.12	6748.86	6976.64	7203.95
6 DISP MLD .....[m3]:	6272.98	6499.69	6727.01	6954.36	7180.94
7 TCF SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
8 LCF FWD OF RFP ....[m]:	-5.526	-5.455	-5.413	-5.332	-4.413
9 TCB SBD OF RFP ....[m]:	0.000	0.000	0.000	0.000	0.000
10 LCB FWD OF RFP ....[m]:	-7.611	-7.564	-7.518	-7.472	-7.421
11 VCB ABOVE RFP .....[m]:	4.409	4.515	4.620	4.726	4.829
12 KMT .....[m]:	7.515	7.523	7.538	7.554	7.526
13 KML .....[m]:	94.650	92.081	89.802	86.975	79.631
14 IT .....[m4]:	19478.7	19547.3	19616.5	19681.8	19370.8
15 IL .....[m4]:	566043	569083	572691	573026	537817
16 MCT SW .....[tm/cm]:	71.629	72.014	72.470	72.513	68.057
18 TPM SW .....[t/cm]:	11.628	11.654	11.684	11.702	11.459
23 WPA .....[m2]:	1134.48	1137.00	1139.91	1141.62	1117.93
24 WSA .....[m2]:	2072.93	2108.13	2144.23	2183.94	2250.24
25 CB .....:	.7504	.7556	.7605	.7652	.7696
26 CP .....:	.7978	.8019	.8058	.8095	.8128
27 CM .....:	.9406	.9422	.9438	.9453	.9468
28 CW .....:	.9337	.9358	.9382	.9396	.9201

CROSS CURVES

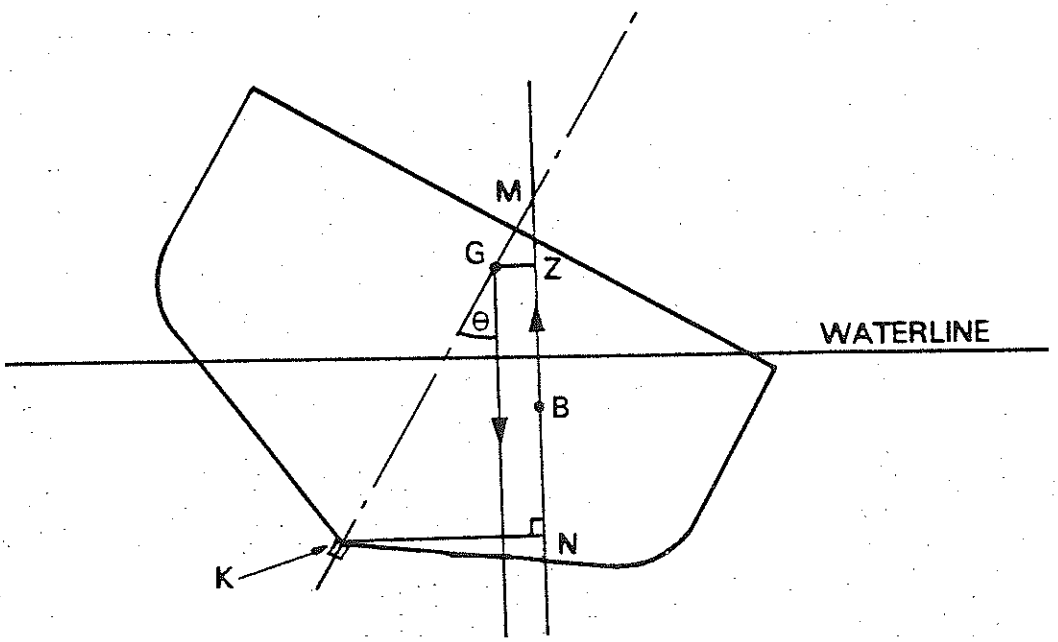
KN CURVES

Note 1 Trim = draught aft - draught forward - design trim
where draughts are measured to the underside of keel at the F.P. and A.P.

Note 2 The KN values tabulated assume that sea water does not enter the hull below the shelterdeck when the vessel heels to the given angle. The closing appliances to these intact spaces must be kept in an efficient condition for closing in appropriate weather conditions so as to maintain the watertightness of the hull.

Note 3 The KN values are determined assuming the L.C.B. to remain constant as the vessel heels.

Note 4 The following diagram illustrates the relationship between KN and the righting lever GZ.



Det norske Veritas program system for desktop computers

NV5001

HYDROSTATICS & INTACT STABILITY

PROGRAM VERSION : 01/86 Rev. 1

CURRENT NV5000 MODEL NUMBER . . . . : 3
CURRENT NV5001 MODEL NUMBER . . . . : 3

IDENTIFICATION

ID. : KLEVEN LØLAND YARD NO. 99
DATE . . . . . : 24.06.87
SIGNATURE . . . . . : KID

UNIT DEFINITIONS

LENGTH UNIT . . . . . : metres [m]
LENGTH UNIT CONVERSION FACTOR . . . . . : 1.0000 [m/m]

WEIGHT UNIT . . . . . : tonnes [t]
WEIGHT UNIT CONVERSION FACTOR . . . . . : 1.0000 [t/t]

PRINCIPAL DATA

LENGTH BETWEEN PERPENDICULARS	:	81.000 m
BREADTH MOULDED	:	15.000 m
DEPTH MOULDED	:	13.000 m
DESIGN DRAUGHT	:	7.000 m
DIST. FROM ORIGIN TO AP	:	0.000 m

AXIS DEFINITION

POSITIVE DIRECTIONS ARE: X TO STARBOARD — POSITIVE TRIM BY THE STERN
Y FORWARD — POSITIVE HEEL TO STARBOARD
Z UPWARDS

REFERENCES

DEFINITION OF GLOBAL ORIGIN:

TRANSVERSE....: CL
LONGITUDINAL..: AP
VERTICAL.....: BL

OUTPUT REFERENCE POINT (RFP), DISTANCE FROM GLOBAL ORIGIN:

TRANSVERSE....: 0.000 m : CL
LONGITUDINAL..: 40.500 m : AMIDSHIPS
VERTICAL.....: 0.000 m : BL

DRAUGHT EXTREME (above RFP):

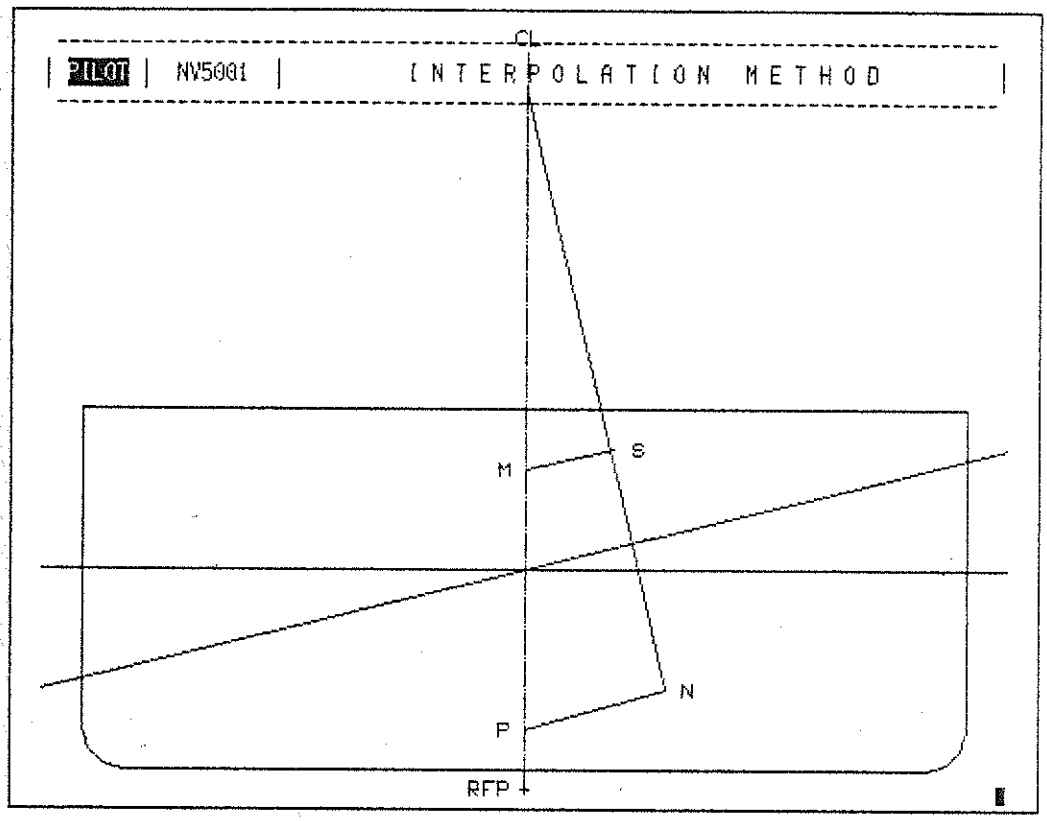
VERTICAL.....: -.320 m : U.S. OF KEEL AMIDSHIPS

ABBREVIATIONS

1	DRAUGHT EXTREME .:	Extreme draught at RFP.
2	DRAUGHT RFP .....:	Draught above RFP.
3	NORMAL DRAUGHT ..:	Draught measured normal to WP. at RFP.
4	TRIM .....:	Trim to stern in m.
5	DISPL TOTAL SW ..:	Total displacement in seawater. (1.025 t/m3)
6	DISPL TOTAL FW ..:	Total displacement in freshwater. (1 t/m3)
7	DISPL MLD .....:	Moulded volume of displacement.
8	LCF FWD OF RFP ..:	Long. centre of flotation forward of RFP.
9	TCB SBD OF RFP ..:	Transv. centre of bouyancy to starboard of RFP.
10	LCB FWD OF RFP ..:	Long. centre of bouyancy forward of RFP.
11	VCB ABOVE RFP ...:	Vert. centre of bouyancy above RFP.
12	KMT .....:	Position of transverse metacentre above RFP.
13	MS .....:	Stability lever about initial metacentre.
14	PN .....:	Stability lever about a given point P on the vertical axis through the CB.
15	AREA : MS CURVE .:	The integral of MS curve from 0 to a given heel.
16	AREA : PN CURVE .:	The integral of PN curve from 0 to a given heel.

NOTE: Calculation of stability levers are based on MOULDED lines.

FLOODING ANGLES ....: '---' signifies below water at zero heel.
'+++' signifies above water at all angles of heel.


CL
PILOT | NV5001 | INTERPOLATION METHOD
M
S
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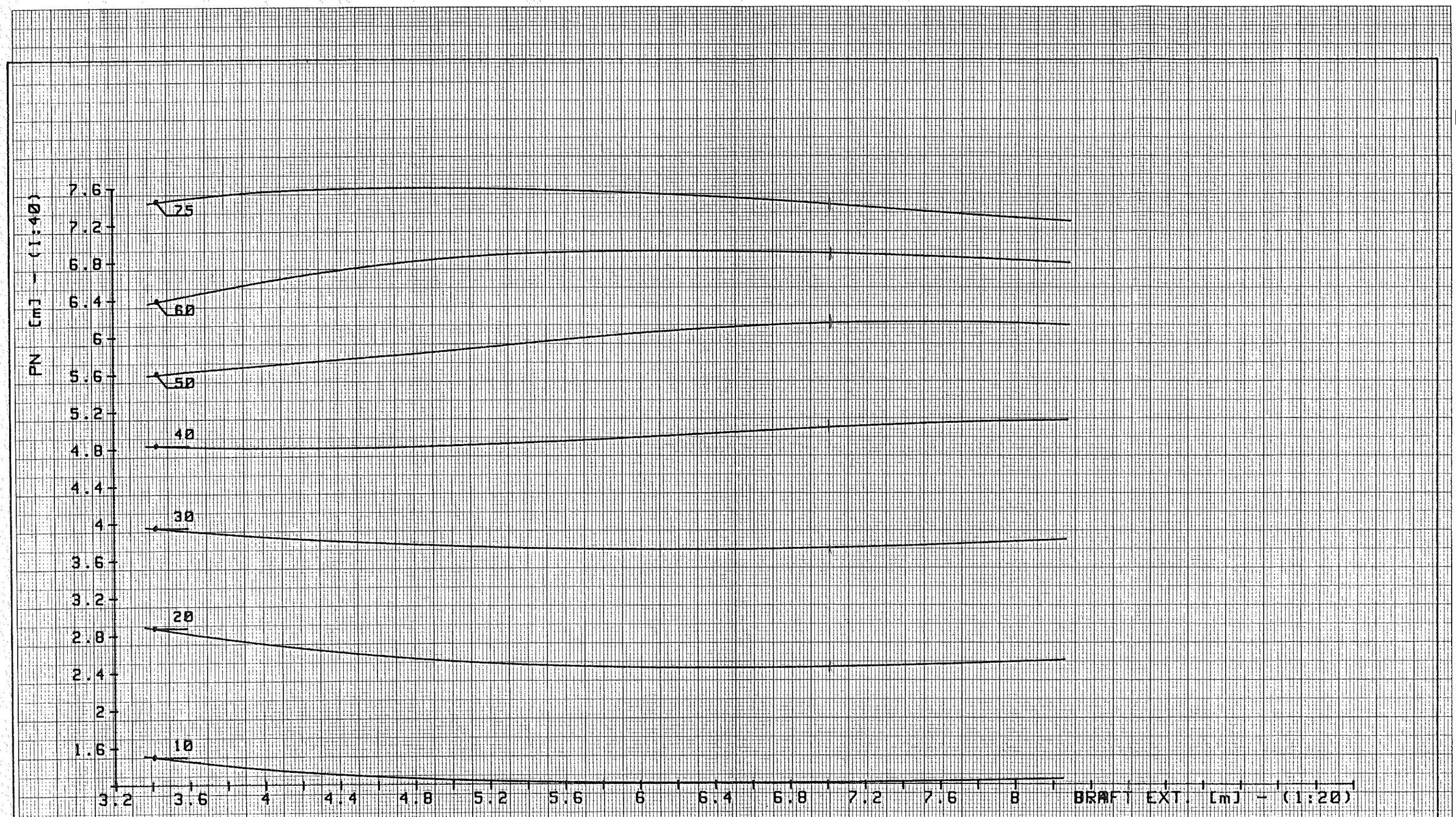
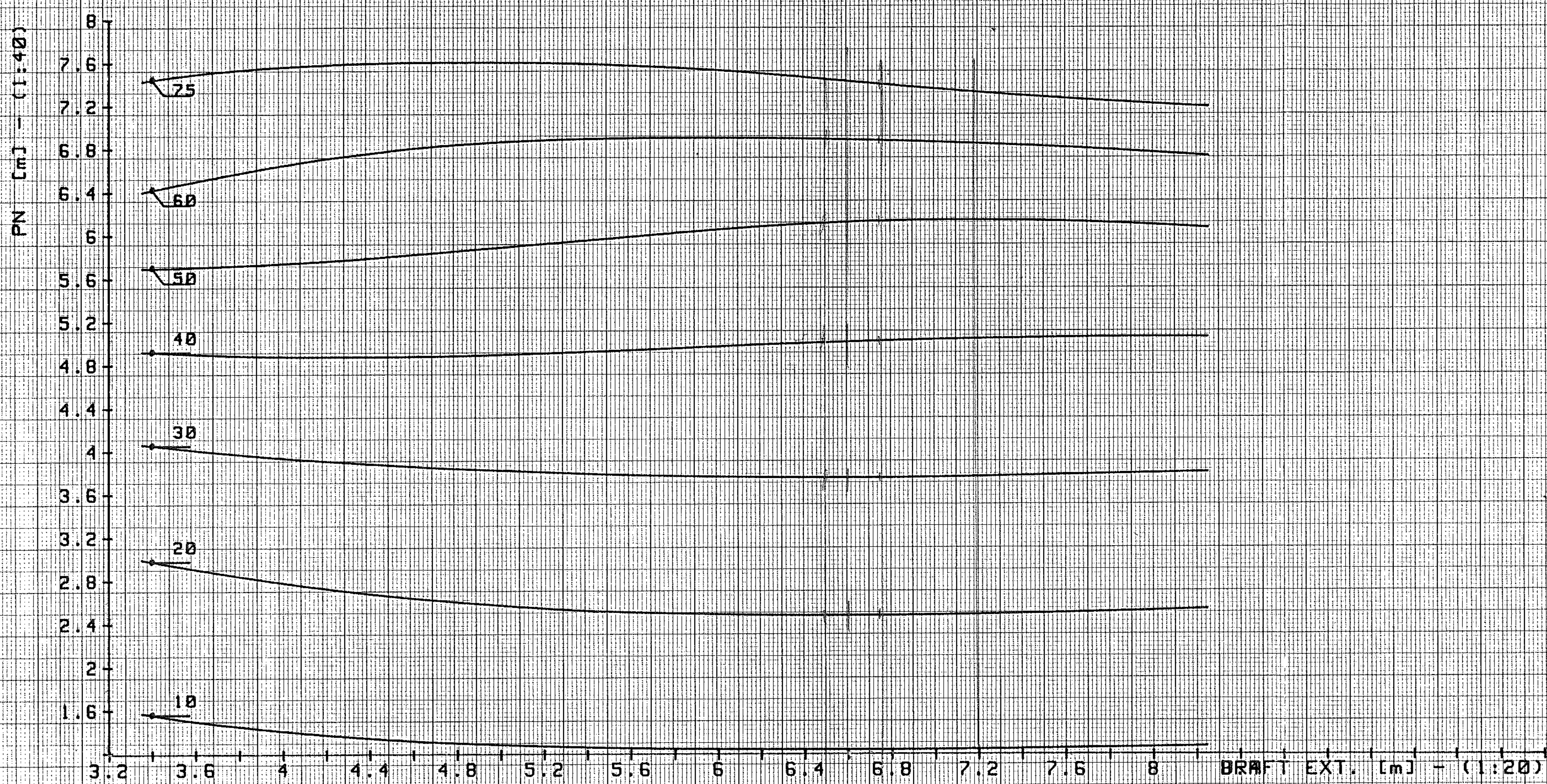
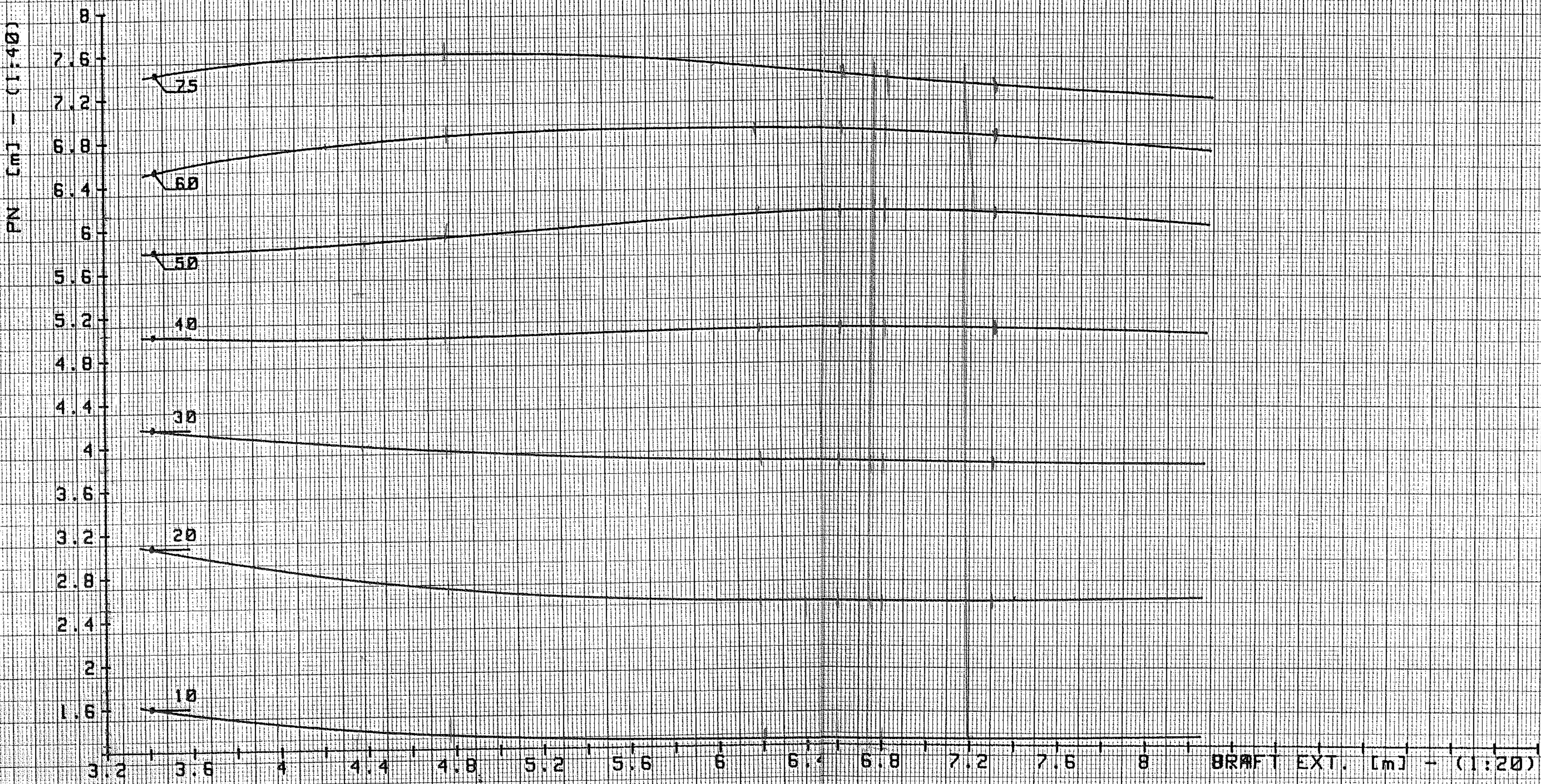
RFP



PILOT NV5001	TRIM: -2.000 [m] FREE TO TRIM KP: 0.000 [m] DATE: 24.06.87 SIGN: KID WATER DENSITY: 1.025 [t/m3] KLEVEN LØLAND YARD NO. 99 (MODEL # 3)	CROSS CURVES



PILOT NV5001	TRIM: 0.000 [m] FREE TO TRIM KP: 0.000 [m] DATE: 24.06.87 SIGN: KID WATER DENSITY: 1.025 [t/m3] KLEVEN LØLAND YARD NO. 99 (MODEL # 3)	CROSS CURVES



PILOT NV5001	TRIM: 2.000 [m] FREE TO TRIM P: 0.000 [m] DATE: 24.06.87 SIGN: KID WTER DENSITY: 1.025 [t/m3] KLEVEN LØLAND YARD NO. 99 (MODEL # 3)	CROSS CURVES

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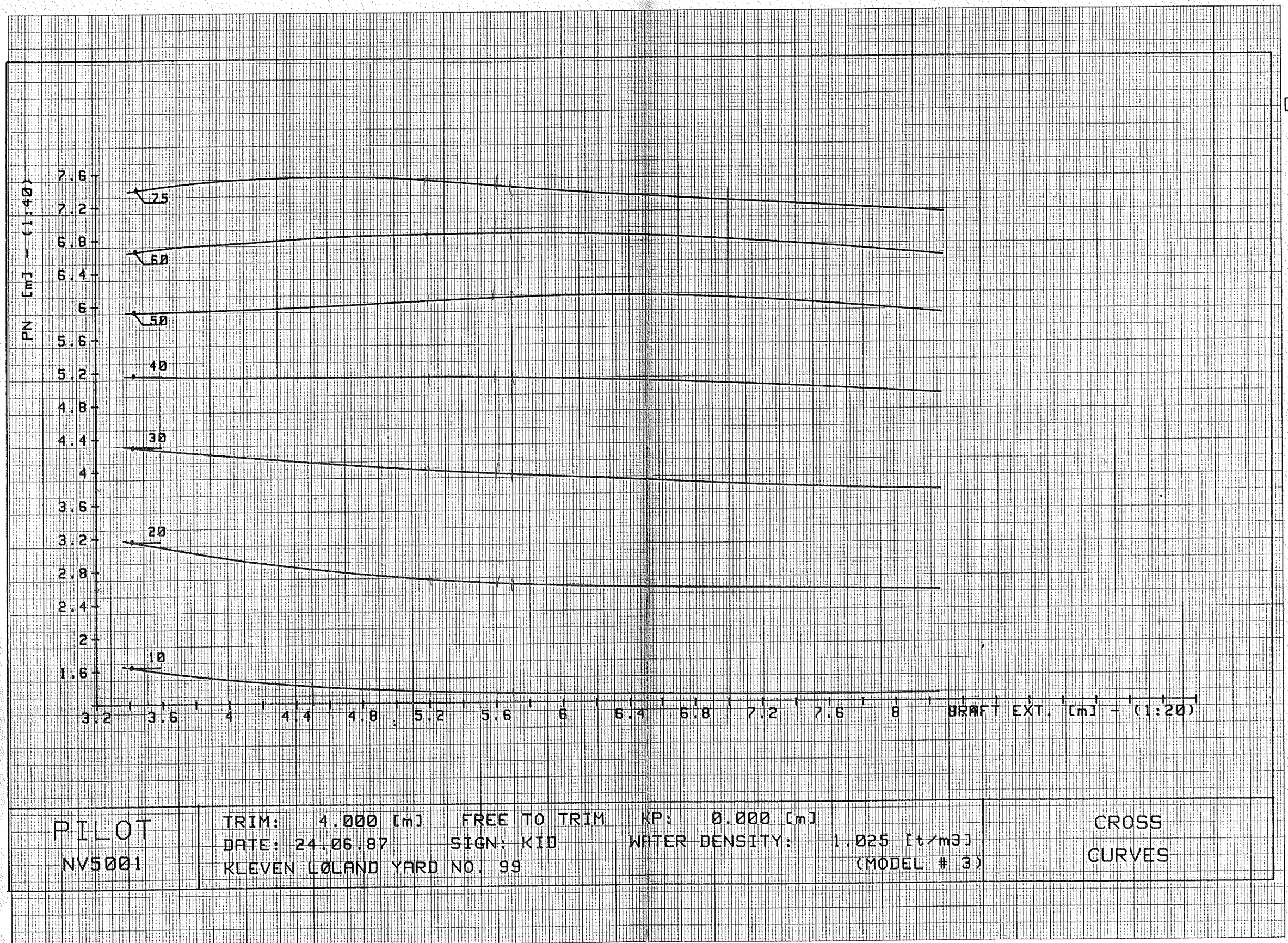
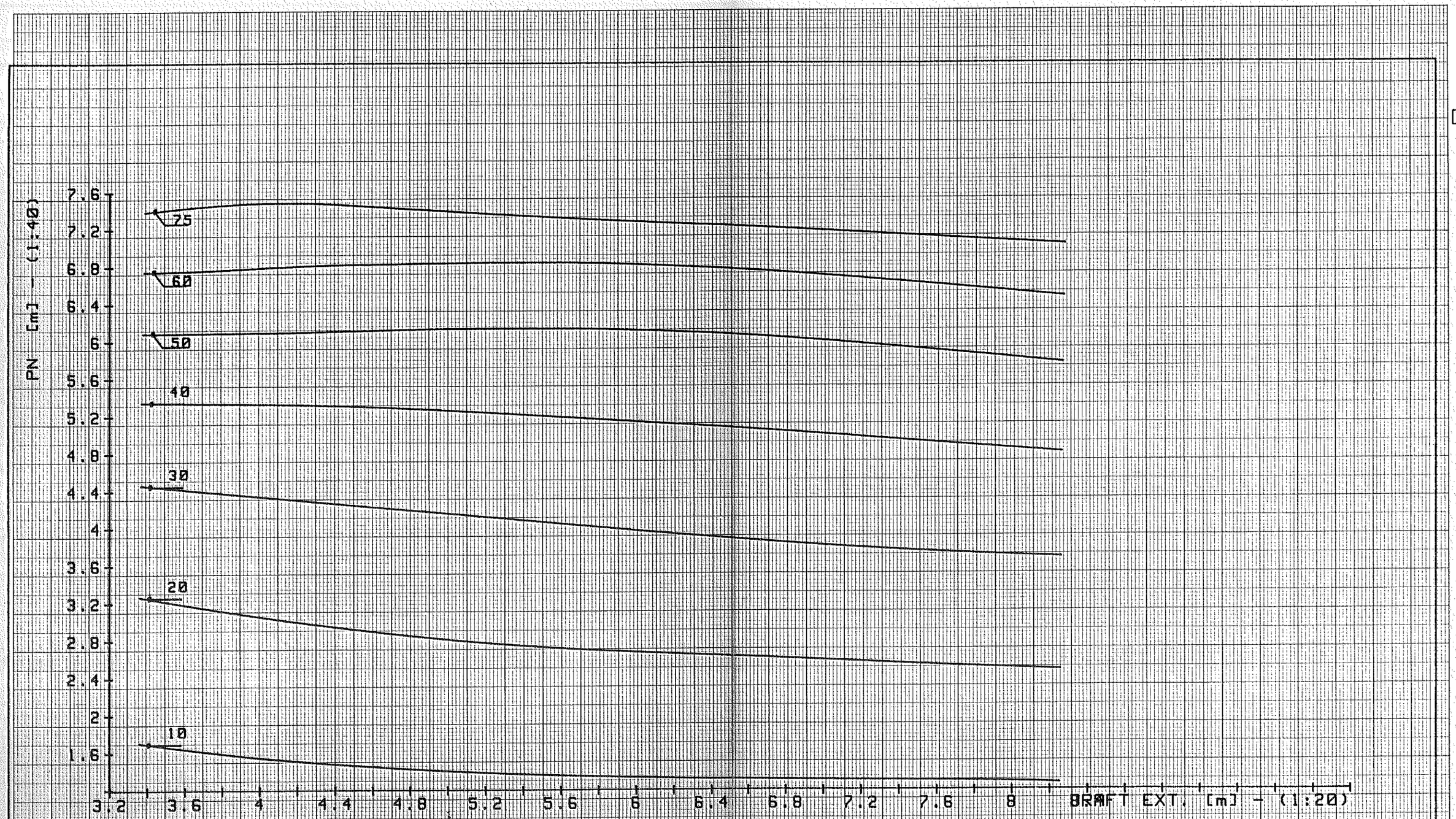


PILOT
NV5001

TRIM: 4.000 [m] FREE TO TRIM KP: 0.000 [m]
DATE: 24.06.87 SIGN: KID WATER DENSITY: 1.025 [t/m3]
KLEVEN LØLAND YARD NO. 99 (MODEL # 3)

CROSS CURVES



PILOT NV5001	TRIM: 6.000 [m] FREE TO TRIM KP: 0.000 [m] DATE: 24.06.87 SIGN: KID WATER DENSITY: 1.025 [t/m3] KLEVEN LØLAND YARD NO. 99 (MODEL # 3)	CROSS CURVES