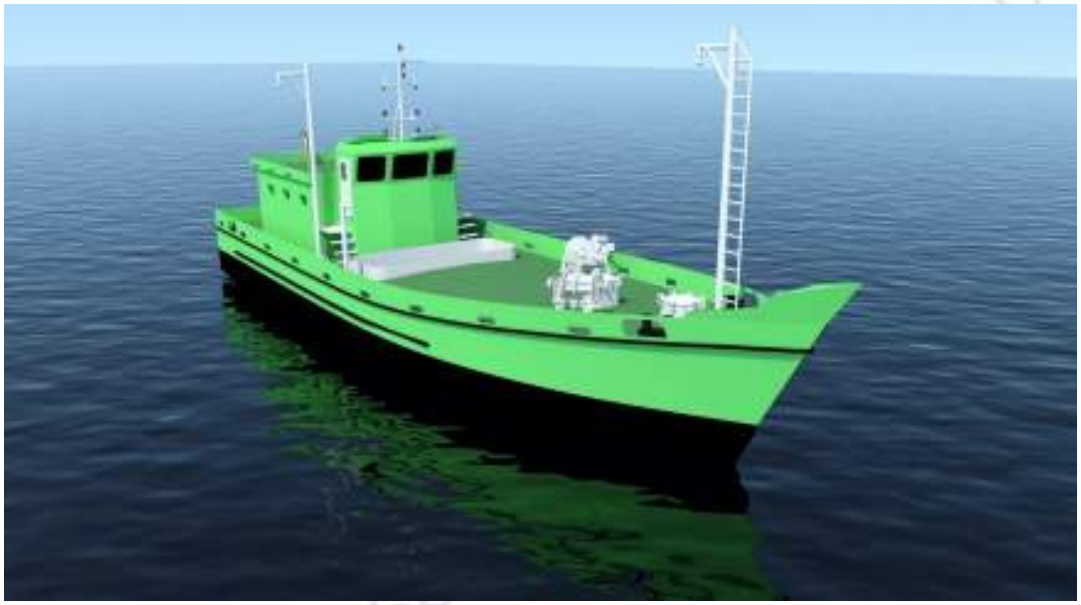
FISHING VESSEL
FV-R40



DATA SHEET - [VARIANT 1]

REVIEWED

03 APRIL, 2021

SEE LETTER: E-121681-165894

PLAN(S) NOW SENT SUPERSEDE THE APPROPRIATE PLAN(S) PREVIOUSLY APPROVED/NOTED ON. 31 MARCH, 2021

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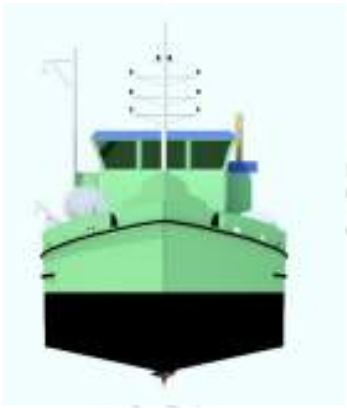
1 MAIN PARTICULARS



Description	Abbreviation		Unit
Length Overall	LOA	22.70	m
LBP	LBP	20.25	m
Breadth (Max.)	B	6.40	m
Depth	D	3.00	m
Draught (Max.)	T	1.62	m
Speed	V	8.00	knots
Displacement	Δ	108.8	tonnes
Lightship Weight (approx.)	Lwt	56	tonnes
Complement		8	Nos.

Table 1 : Main Particulars

2 SPECIFICATION

2.1 Main Engine & Generator

- Main Engine : 180 ~ 200 HP approx. [@ maximum Continuous Rating (MCR)]
- Diesel Generator : Adequate size suitable for load.

2.2 Fishing Gear

- Long-liner Winch : Suitable to haul 3 mm monoline and to put 350-600 hooks at a time.
- Gillnet Hauler : Suitable for hauling and releasing gill net.

2.3 Fish Hold

- Insulated Fish Hold : ~~35~~ 40 cu. m approx.
- Refrigeration : A part or Full of the Fish Hold Volume (-4 Deg)

2.4 Fish Net Hold

10 m3 approx. space should be provided (as shown in General Arrangement) for storing the fish net. An adequate drainage system with non-return valve should be provided above the water line.

2.5 Capacities

- Diesel oil tank : 8,000 L approx.
- Fresh water tank : 10,000 L approx.
- F.W overhead tank (FRP) : 250 L approx.

2.6 Hull & Accommodation Structure

The vessel will be constructed using IS grade 2062 Grade B steel (3rd Party Certification by IRS) or equivalent and with good quality welding consumables. Thickness of the plating shall be in accordance with Indian Register of Shipping (IRS) "Rules and Regulation for Construction and Classification of Steel Ships".

The superstructure will be made of FRP material as required, with scantlings designed meeting Indian Register of Shipping (IRS) rules.

2.7 Bollards and Anchor

MS Fabricated / Casted anchor (1 no.) with rope of sufficient length will be provided as a loose item. Anchor will be operated manually from over-board.

MS fabricated T type bollard with adequate stiffening at underside will be provided at aft (2 nos.) and forward portion (1 no.) as shown in General Arrangement.

2.8 Navigation and Communication

- Global Positioning System (GPS)
- Automatic identification system (AIS)
- Very high frequency with digital selective calling (VHF-DSC)
- Distress Alert Transmitter (DAT)
- Fish Finder (Eco-Sounder)
- Magnetic Compass

2.9 Mast/ Navigation and Signal Lights Arrangements

S.No.	Description	Quantity	Shade in Color
1	Masthead Light	1	White
2	Anchor Light	1	White
3	Port Side Light	1	Red
4	Starboard Side Light	1	Green
5	Stern Light	1	White
6	NUC	2	Red
7	NUC/ All Round Light Red	2	Red
8	All Round Light White	2	White
9	Black Ball	2	
10	Cones	2	

Table 2 : Light Arrangement

2.10 Life Saving Appliances

The vessel will be fitted with following LSA items and installed as per the lifesaving appliance plan.

- Life Jackets : 10 nos. (As per SOLAS standard)

- Life Buoy : 2 nos. (As per SOLAS standard)

2.11 Fire Fighting Appliances

- Portable Fire Extinguisher : 4 nos.

2.12 Pumps

The Freshwater and bilge/General Service pump (IS/ BIS standard or equivalent) will be fitted in the vessel.

2.13 Hatches

Following access hatches are arranged as shown in the general arrangement plan.

Sl. No.	Description	Number	Type	Coaming Height
1	Flush Type Hatch	2	Watertight	0 mm
2	Normal Hatch	2	Weathertight	380 mm

Table 3 : Hatch Detail

Good quality weathertight FRP Doors will be provided at entrances of wheel house, crew accommodation, toilet, galley, etc. The sill height of doors on the main deck is to be at least 380 mm.

2.14 Materials and Workmanship

2.14.1 Materials

All materials and equipment to be used for the construction of the Vessel shall be good quality and suitable for intended purpose.

2.14.2 Workmanship

All workmanship used for the construction of the vessel shall be of good quality and in accordance with standard of normal shipbuilding practice for this type of ship. The workmanship shall be such as to assure reasonable fair lines and smooth surfaces.

2.15 Painting Schemes

The painting schedule of the vessel will be as per normal ship building standards with good quality marine paint shall be provided, as per the guidelines and the painting scheme as recommended by the paint manufacturer. Necessary alteration may be made by the Yard based on manufacturers recommendation /site requirement. However, following indicative painting schedule is given as guidance.

Location	Description	No. of Coats	Dry film thickness *
Hull Exterior Surface: Under water hull	Surface tolerant High build epoxy	1	150
	Epoxy tie coat	1	100
	TBT Free Self-Polishing AF.	1	100
	TBT Free Self-Polishing AF	1	100
Hull Exterior Surface: Topsides	Surface tolerant High build epoxy	1	100
	Surface tolerant High build epoxy	1	100
	poly urethane/ Polysiloxane	1	50
Fresh Water Tanks	Phenolic Epoxy	1	200
Fish holds, Void tanks	Ballast tank epoxy coatings	1	160
	Ballast tank epoxy coatings	1	160
Bulwarks inside, Hatch covers, Coamings	Surface tolerant High build epoxy	1	125
	Surface tolerant High build epoxy	1	125
	poly urethane/ Polysiloxane	1	50
Deck fittings, Davits etc.	Surface tolerant High build epoxy	1	125
	poly urethane/ Polysiloxane	1	50
Inside Engine Room, SGR, Stores-Sides & overhead, Interior of vent trunk	Alkyd primer/ Acylic Primer	1	40
	Alkyd primer/ Acylic Primer	1	40
	Alkyd primer/ Acylic Primer	1	40
Engine Room, SGR, Stores - floor and foundations	Alkyd primer/ Acylic Primer	1	40
	Alkyd primer/ Acylic Primer	1	40
	Alkyd primer/ Acylic Primer	1	40

Anchor	Surface tolerant epoxy	1	125
	Surface tolerant epoxy	1	125
Space for fishing net	Surface tolerant High build epoxy	1	125
	Surface tolerant High build epoxy	1	125
Fuel oil tanks & other oil tanks	Epoxy primer	1	50
Draft Marks	Alkyd finish	1	70
Exhaust pipes	HR aluminium	1	25
	HR aluminium	1	25
Vessel Name, Port of registry, Marking	PU	1	70

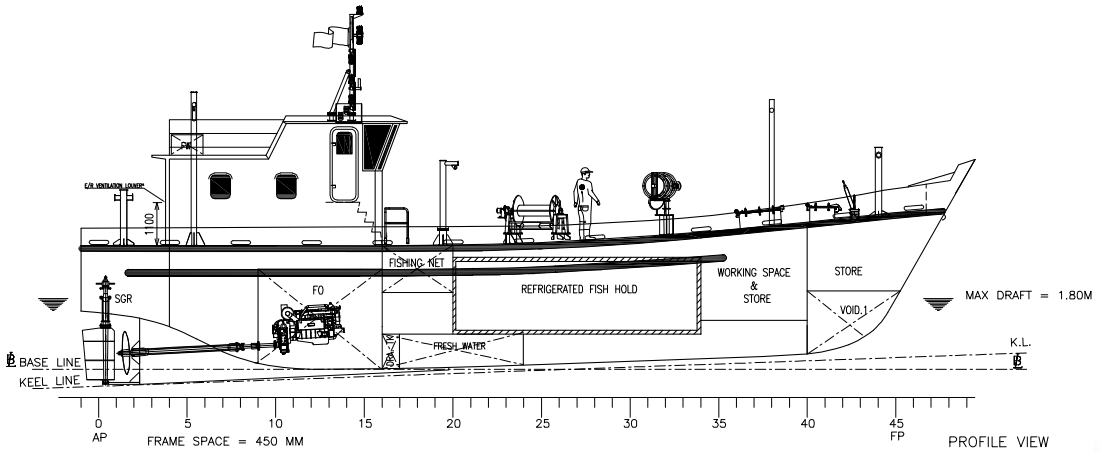
Table 4 : Paint Scheme

3 RULES & REGULATION

i. Vessel hull is built according to Rules and Regulation for the construction and classification of steel ships by the Indian Register of Shipping (IRS) or/and to corresponding regulations of respective administrative regulation body.
   - Steel Material : IS 2062 Grade B [3rd party certification by IRS] or equivalent

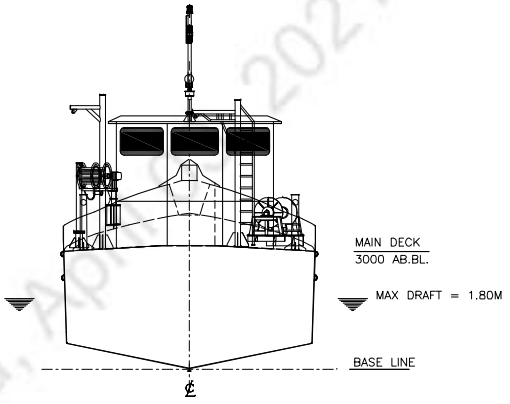
ii. Intact Stability Criteria in accordance with IS code 2008.

4 GENERAL ARRANGEMENT

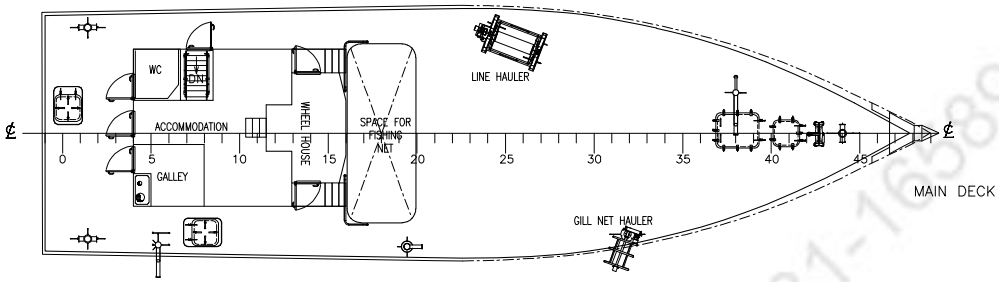


FRAME SPACE = 450 MM

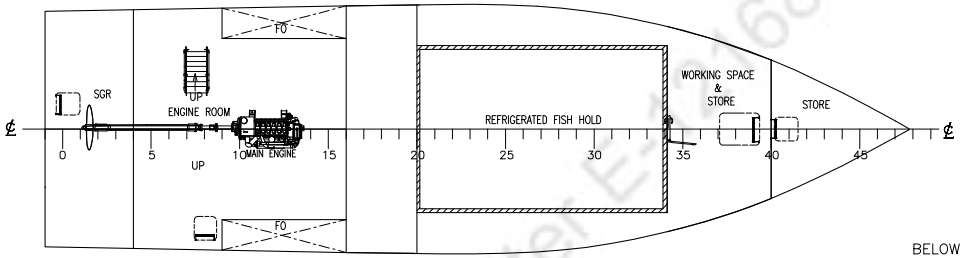
PROFILE VIEW



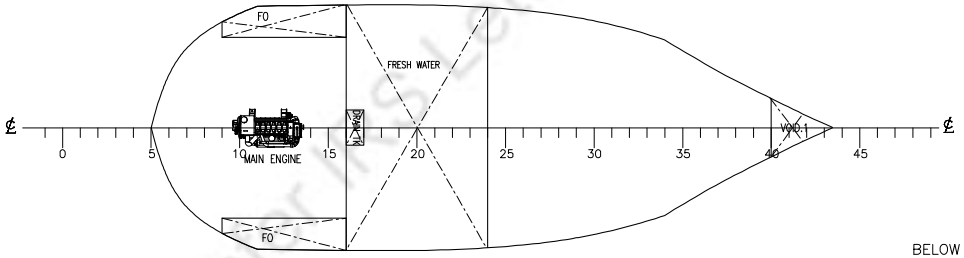
SECTION VIEW



MAIN DECK



BELOW MAIN DECK



BELOW FISH HOLD BASE

MAIN PARTICULARS :

LENGTH O.A	abt 22.70 M.
LENGTH B.P	abt 20.25M.
BREADTH (MLD)	abt 6.40 M.
DEPTH (MIDSHIP)	abt 3.00 M.
DRAFT (MAX.)	abt 1.80 M.
FRAME SPACING	450 MM
SPEED	8 KNOTS.
REFRIGERATED FISH HOLD..	abt 40 Cu m.

NOTE:

1. DRAWING ONLY FOR IN PRINCIPLE APPROVAL
2. DETAILED DRAWING SHALL BE SUBMITTED BY THE RESPECTIVE YARD.
3. * MINIMUM HEIGHT OF VENTILATION LOUVER IS 2.30 M FROM WATERLINE

[redacted]

VARIANT 1

No:	Date	Description	Drawn	Checked	Approved
Rev.1	25.Mar.2021	INCORPORATING IRS COMMENTS			
Rev.0	31.Oct.2020	PRELIMINARY			

CUSTOMER TBD

Yard Nos.: TBD

FISHING VESSEL FV-R40

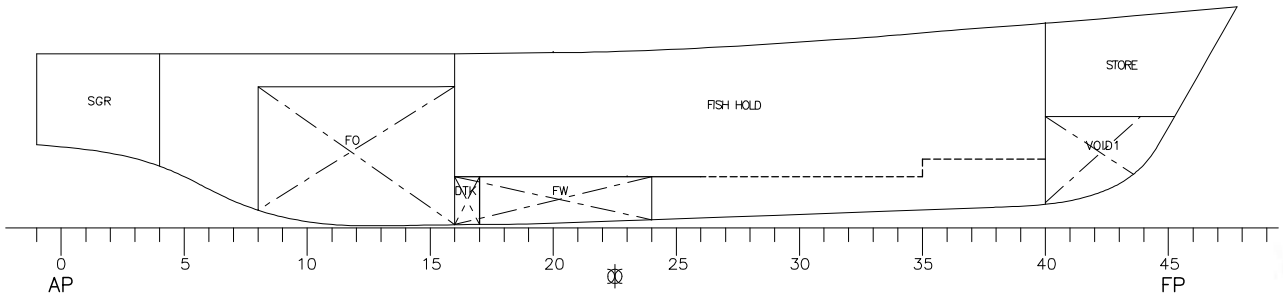
TITLE

GENERAL ARRANGEMENT

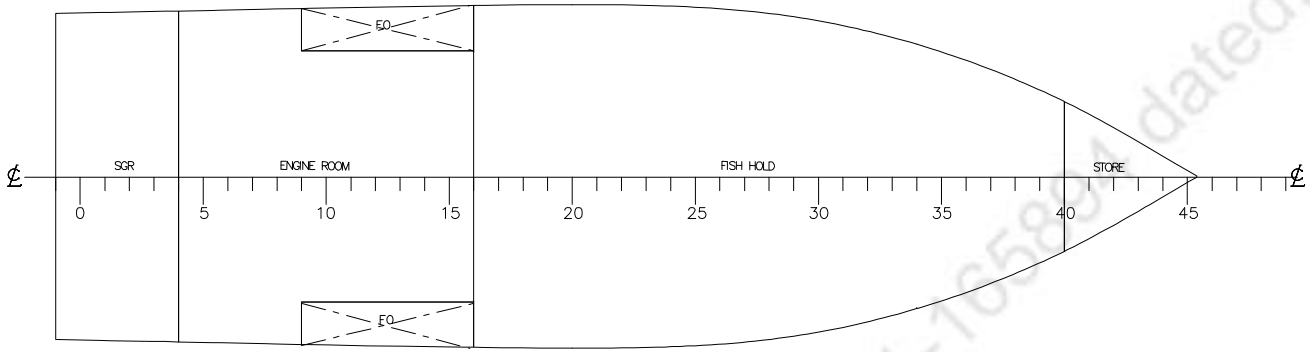
COCHIN SHIPYARD LIMITED
P.O. Bag 1653,COCHIN-682015, INDIA

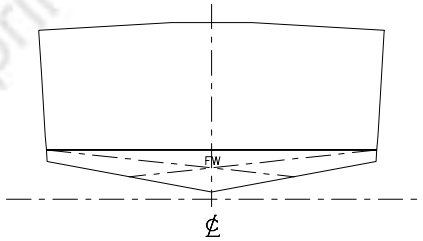
Scale	Format	Project No.	Dwg. no.	Sheet No.
1:125	A3	FV-R40	FVR740-101-001	01/01

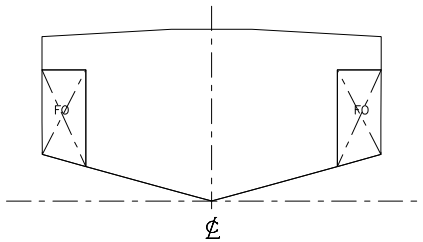
5 TANK PLAN

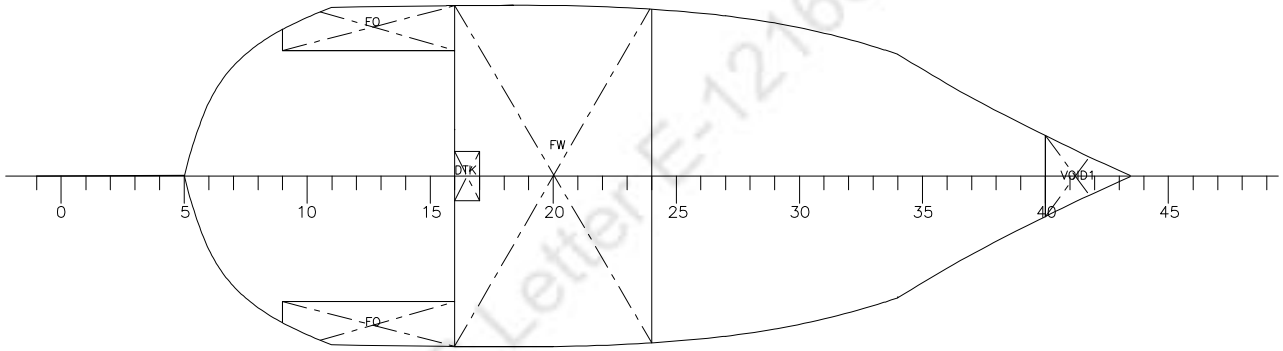


PROFILE









MAIN PARTICULARS :

LENGTH O.A.....	abt 22.70 M.
LENGTH B.P.....	abt 20.25M.
BREADTH (MLD).....	abt 6.40 M.
DEPTH (MIDSHIP).....	abt 3.00 M.
DRAFT (MAX.).....	abt 1.80 M.
FRAME SPACING.....	450 MM
SPEED.....	8 KNOTS.
REFRIGERATED FISH HOLD...	abt 40 Cu m.

NOTE:

1. DRAWING ONLY FOR IN PRINCIPLE APPROVAL
2. DETAILED DRAWING SHALL BE SUBMITTED BY THE RESPECTIVE YARD.

VARIANT 1

TANK SUMMARY

NO:	NAME	DESCRIPTION	CONTENT	DENSITY	NET VOLUME	MASS	FR-MIN	FR-MAX	CGX	CGY	CGZ	REMARKS
				t/m3	m3	TONNE	#	#	m	m	m	
1	TK01	FO TK.1(PS)	DO	0.8600	4.1	3.526	9.0	16.0	6.13	2.69	1.57	
2	TK02	FO TK.2(SB)	DO	0.8600	4.1	3.526	9.0	16.0	6.13	2.69	1.57	
			Total Diesel Oil		8.2	7.052						
3	TK03	FW TK.1	FW	1.0000	11.3	11.3	16.0	24.0	9.47	0.00	0.61	
4	TK04	VOID 1	VOID	1.025	2.9	2.97	40.0	45.0	19.13	0.0	1.46	
5	TK05	DRAIN TK.	DRAIN WATER	1.025	0.3	0.30	16.0	17.0	7.87	0.0	0.49	

Rev.	Date	Description	Drawn	Checked	Approved
0	31.OCT.2020	Preliminary			

CUSTOMER: TBD

FISHING VESSEL FV-R40

TITLE: **TANK PLAN**

Yard Nos.: TBD

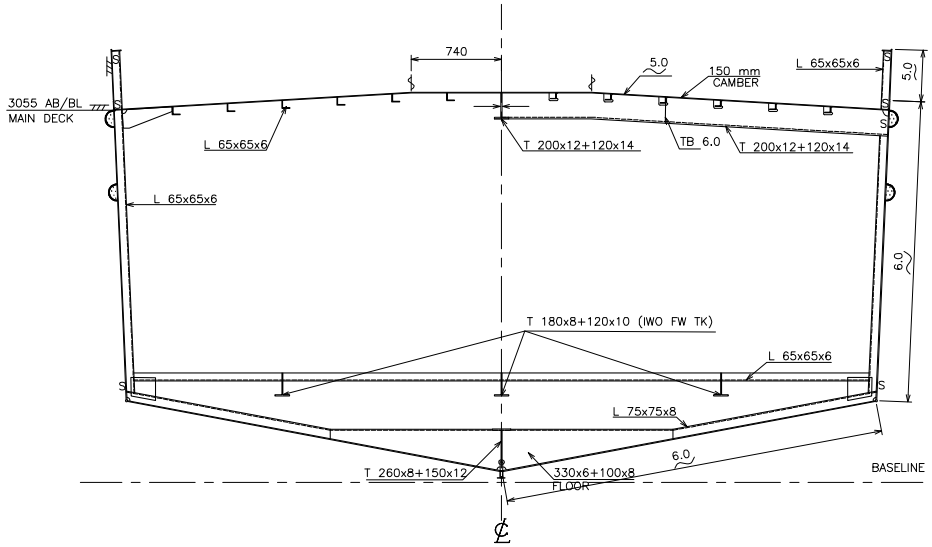
Rev.0

COCHIN SHIPYARD LIMITED
P.O. Bag 1653, COCHIN-682015, INDIA

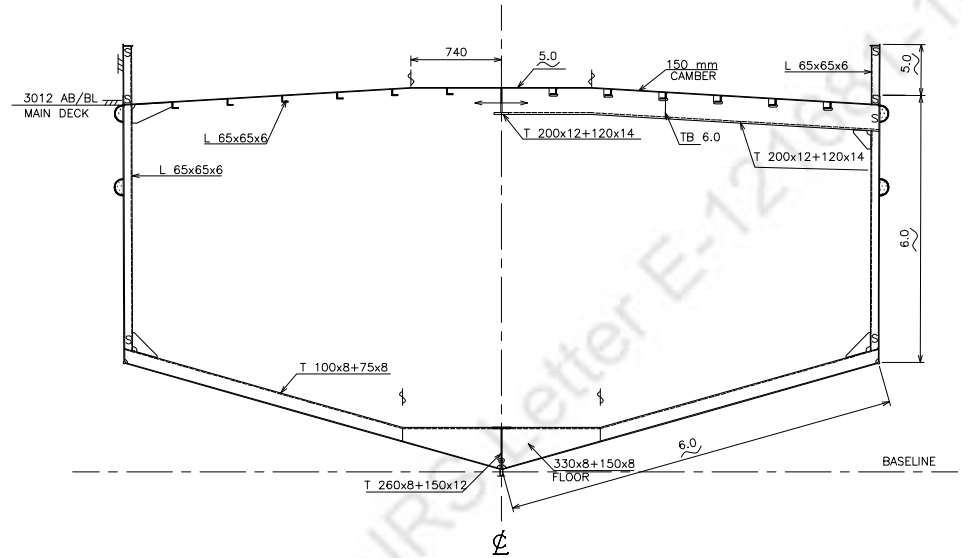
Scale	Format	Project No.	Dwg. no.	Sheet No.
1:90	A3	FV-R40	FVR40-101-007	01/01

6 MIDSHIP SECTION

TYP. SECTION IWO FISH HOLD



TYP. SECTION IWO ENGINE ROOM



MAIN PARTICULARS :

LENGTH O.A.....	abt 22.70 M.
LENGTH B.P.....	abt 20.25 M.
BREADTH (MLD).....	abt 6.40 M.
DEPTH (MIDSHIP).....	abt 3.00 M.
DRAFT (MAX.).....	abt 1.80 M.
FRAME SPACING.....	450 MM
SPEED.....	8 KNOTS.
REFRIGERATED FISH HOLD...	abt 40 Cu m.

NOTE:

1. DRAWING ONLY FOR IN PRINCIPLE APPROVAL
2. DETAILED DRAWING SHALL BE SUBMITTED BY THE RESPECTIVE YARD.
3. MATERIAL: ALL PLATES & STIFFRS. : ISØ 2062 GRADE B [3rd party certification by IRS]/EQUIVALENT
4. ALL DIMENSIONS ARE IN mm. (EXC. NOTED)

VARIANT 1

No:	Date	Description	Drawn	Checked	Approved
Rev.1	25.Mar.2021	Incorporating IRS Comments			
Rev.0	02.NOV.2020	Preliminary			

CUSTOMER TBD

FISHING VESSEL FV-R40

Yard Nos.: TBD

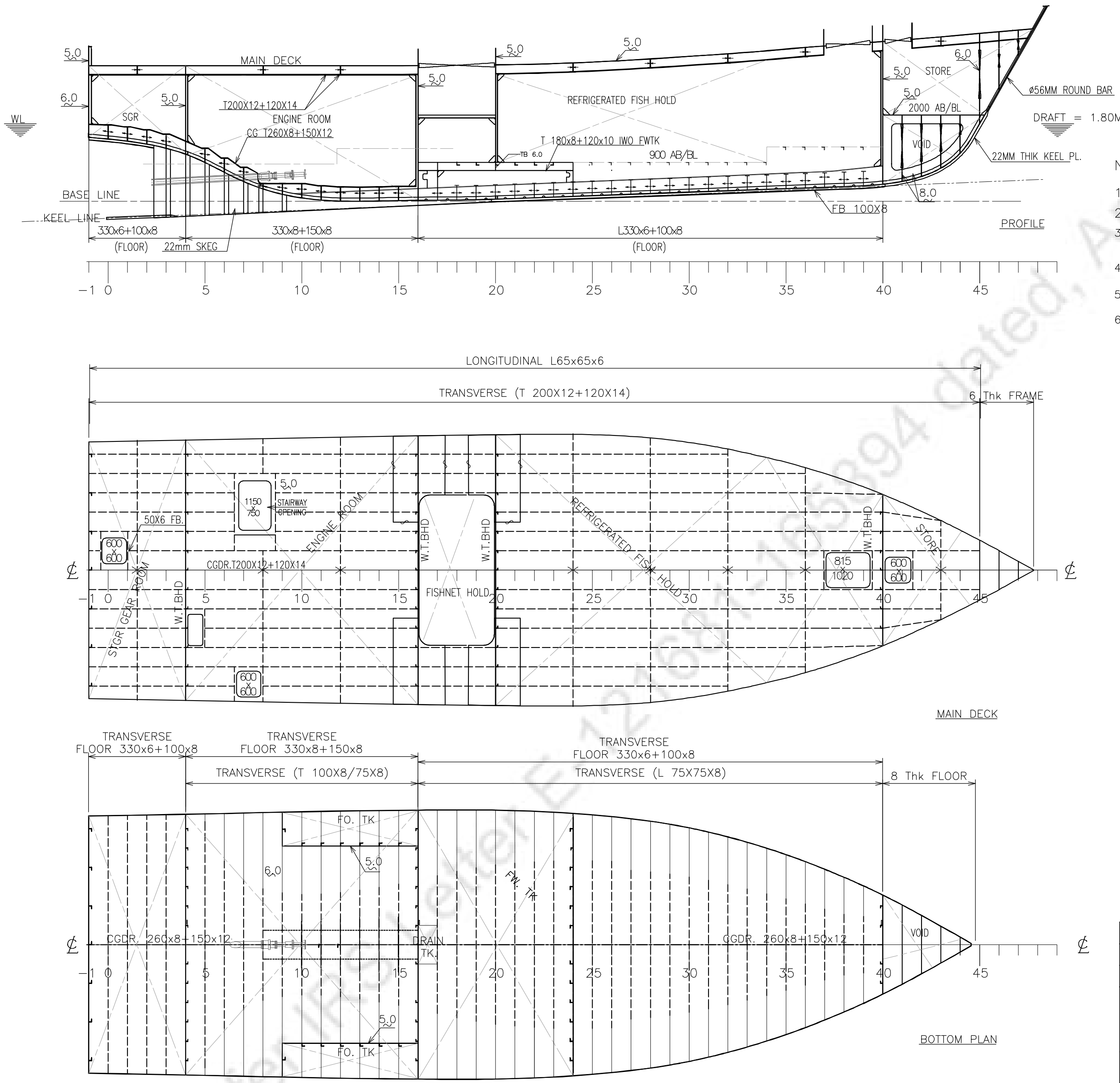
TITLE **Midship Section**

R1

COCHIN SHIPYARD LIMITED
P.O. Bag 1653, COCHIN-682015, INDIA

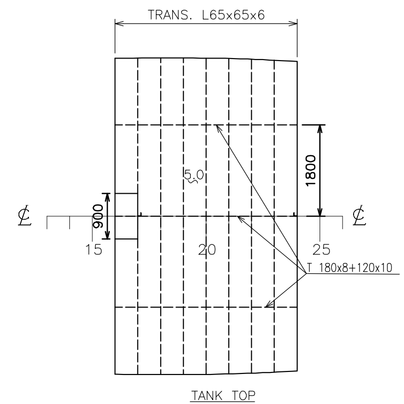
Scale	Format	Project No.	Dwg. no.	Sheet No.
1:40	A3	FV-R40	FVR40-200-003	01/01

7 PROFILE & DECK



NOTE:

1. DRAWING ONLY FOR IN PRINCIPLE APPROVAL
2. DETAILED DRAWING SHALL BE SUBMITTED BY THE RESPECTIVE YARD.
3. MATERIAL: ALL PLATES & STIFFRS. : IS 2062 GRADE B [3rd PARTY CERTIFICATION BY IRS]/EQUIVALENT
4. SUITABLE INSERT PLATES OF HIGHER THICKNESS WILL BE PROVIDED IWO DECK FITTING
5. FISH HOLD BOTTOM ARRANGEMENT WILL BE DESIGNED BASED ON FISH HOLD MAX LOAD
6. ALL DIMENSIONS ARE IN mm. (EXC. NOTED)



MAIN PARTICULARS :

LENGTH O.A.......................... abt 22.70 M.
LENGTH B.P.......................... abt 20.25 M.
BREADTH (MLD)................... abt 6.40 M.
DEPTH (MIDSHIP)................. abt 3.00 M.
DRAFT (MAX.)........................ abt 1.80 M.
FRAME SPACING................... 450 MM
SPEED.................................. 8 KNOTS.
REFRIGERATED FISH HOLD... abt 40 Cu m.

VARIANT 1

No:	Date	Description	Drawn	Checked	Approved
Rev.1	25.Mar.2021	Incorporating IRS Comment			
Rev.0	31.Oct.2020	Preliminary			

CUSTOMER TBD

FISHING VESSEL FV–R40

TITLE

Profile and Deck Plan

Yard Nos.:TBD

COCHIN SHIPYARD LIMITED
P.O. Bag 1653, COCHIN-682015, INDIA

Scale	Format	Project No.	Dwg. no.	Sheet No.
1:97	A3	FV-R40	FVR40-200-002	01/01

8 STABILITY CALCULATION

TABLE OF CONTENTS

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2. MAIN PARTICULARS 2-1

3. STABILITY CRITERIA 3-1

4. LOADING CONDITION 4-1

5. HYDROSTATIC TABLE 5-1

6. CROSS CURVE 6-1

1. INSTRUCTIONS TO THE MASTER

This stability information shows that the ship complies with definite intact stability requirements in all designed conditions and gives the data deemed necessary for the calculation and evaluation of stability to the master in order that he can take suitable measures for securing the stability in any service condition.

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

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

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

- The number of partially filled or slack tanks should be kept to a minimum because of their adverse effect on stability.

- All doorways and other openings, through which water can enter into the hull or deckhouses, forecastle, etc., should be suitably closed in adverse weather conditions and accordingly all appliances for this purpose should be maintained on board and in good condition.

- Weather tight and watertight hatches, doors, etc., should be kept closed during navigation, except when necessarily opened for the working of the ship and should always be ready for immediate closure and be clearly marked to indicate that these fittings are to be kept closed except for access. Hatch cover in fishing vessels should be kept properly secured when not in use during fishing operations.

Apart from general precautions, the following measures should be considered as preliminary guidance on matters influencing safety as related to stability.

- All fishing gear and other large weights should be properly stowed and placed as low as possible.

- Particular care should be taken when pull from fishing gear might have a bad effect on stability, e.g., when nets are hauled by power-block.

- Gear for releasing deck load in fishing vessels carrying catch on deck, e.g., herring, should be kept in good working condition for use when necessary.

- Fish should never be carried in bulk without first being sure that the portable divisions in the holds are properly installed;

- Reliance on automatic steering may be dangerous as this prevents changes to course which may be needed in bad weather.

- In all conditions of loading necessary care should be taken to maintain a seaworthy freeboard.

- Particular care should be taken when the pull from fishing gear results in dangerous heel angles. This may occur when fishing gear fastens onto an underwater obstacle or when handling fishing gear, particularly on purse seiners. The heel angles caused by the fishing gear in these situations may be eliminated by employing devices which can relieve or remove excessive forces applied through the fishing gear. Such devices should not impose a danger to the vessel through operating in circumstances other than those for which they were intended.

All longitudinal levers, namely LCB, LCG, and LCF are computed with reference to the transom of the ship.

Notes on use of Cross Curves of stability

The purpose of the cross curves of stability is to enable stability curves to be drawn for the ship in any loading condition. Intact stability is then determined on the basis of this curve.

2. MAIN PARTICULARS

Ship Name	: TBD
Ship Type	: Fishing vessel
Owner	:
Builder's Name	: TBD
Yard No.	: TBD
Port of Registry	:
Classification	: Indian Register of Shipping

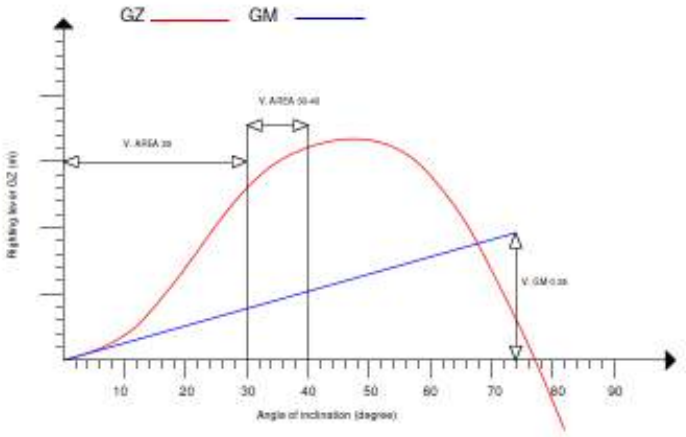
Length overall	: 22.70	m
Length between perpendiculars	: 20.25	m
Breadth (Moulded)	: 6.40	m
Draught (Scantling)	: 1.80	m
Draught (Max. Design)	: 1.62	m
Depth moulded at side	: 3.00	m
Displacement at design draught	: 108.8	MT
Speed	: 8.00	knots

3. STABILITY CRITERIA

Intact Stability Criteria

Regulation

Intact Stability Criteria in accordance with IS code 2008.



- Initial Metacentric height GM_0 not less than 0.35 m.
- The area under the righting lever curve (GZ curve) up to ϕ = 30° angle of heel shall be not less than 0.055 m-rad.
- The area under the righting lever (GZ) curve shall not be less than 0.090 m-rad up to an angle of flooding (ϕ_f) or 40°, whichever is less.
- The area under the righting lever (GZ) curve shall not be less than 0.030 m-rad between the angle of heel 30 deg &angle of flooding (ϕ_f) or 40 deg., whichever is less.
- The righting lever GZ should be at least 0.20 m at an angle of heel equal to or greater than 30 deg.
- The maximum righting lever should occur at an angle of heel preferably exceeding 30 deg, but not less than 25 deg.
- The angle of heel under action of steady wind should not exceed 16° or 80% of the angle of deck edge immersion, whichever is less

For the purpose of calculating the heeling moments the following assumptions shall be made:

Moments due to wind pressure:

1. A wind pressure may be taken as

h (m)	1	2	3	4	5	6 and over
P (Pa)	316	386	429	460	485	504

Where h is the vertical distance from the centre of the projected vertical area of the vessel above the waterline, to the waterline

2. The area applicable shall be the projected lateral area of the ship above the waterline corresponding to the intact condition;

3. The moment arm shall be the vertical distance from a point at one half of the mean draught corresponding to the intact condition to the centre of gravity of the lateral area.

Recommended weather criterion (IS CODE 2008)

The ability of a ship to withstand the combined effects of beam wind and rolling should be demonstrated for each standard condition of loading, with reference to the figure as follows:

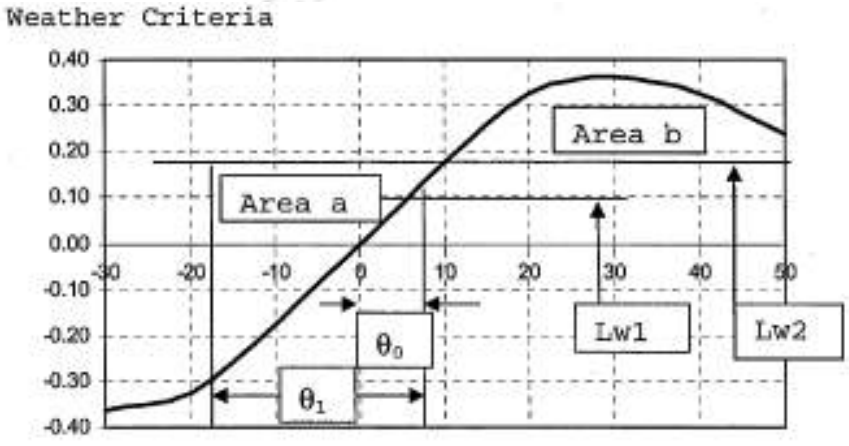
1. The ship is subjected to a steady wind pressure acting perpendicular to the ship's centreline which results in a steady wind heeling level (Lw1).

2. From the resultant angle of equilibrium (θo), the ship is assumed to roll owing to wave action to an angle of roll (θ 1) to windward. The angle of heel under action of steady wind (θo) should not exceed 16° or 80% of the angle of deck edge immersion, whichever is less. Attention should be paid to the effect of steady wind so that excessive resultant angles of heel are avoided.

3. The ship is then subjected to a gust wind pressure which results in a gust wind heeling lever (Lw2).

4. Under these circumstances, area “b” should be equal to or greater than area “a”.

5. Free surface effects should be accounted for in the standard conditions of loading.



6. The angles are defined as follows:

- θo = angle of heel under action of steady wind
- θ1 = angle of roll to windward due to wave action
- θ2 = angle of down flooding (θf) or 50° or θc, whichever is less

Where:

- θf = angle of heel at which openings in the hull, superstructures or deckhouses which cannot be closed weather tight immerse. In applying this criterion, small openings through which progressive flooding cannot take place need not be considered as open.
- θc = angle of second intercept between wind heeling lever lw2 and GZ curves.

The wind heeling levers lw1and lw2 are constant values at all angles of inclination and should be calculated as follows:

Lw1 = (P*A*Z/ (1000*g* Δ))
Lw2 = 1.5*Lw1

- P = wind pressure of 504 Pa. The value of P used for ships in restricted service may be reduced subject to the approval of the Administration
- A = projected lateral area of the portion of the ship and deck cargo above the waterline (m2).
- Z = vertical distance from the centre of A to the centre of the underwater lateral area or approximately to
  a point at one half the mean draught (m)
- Δ = displacement (t)
- g = gravitational acceleration of 9.81 m/s2

The angle of roll (θ1) should be calculated as follows:

$$\theta_1 = 109kX_1X_2\sqrt{rs} \text{ (degrees)}$$

Where:

- X1 = factor as shown in table 1
- X2 = factor as shown in table 2
- k = factor as follows:

- k = 1.0 for round-bilged ship having no bilge or bar keels
- k = 0.7 for a ship having sharp bilges
- k = as shown in table 3 for a ship having bilge keels, a bar keel or both

$$r = 0.73 \pm 0.6\ OG/d$$

With:

- OG = distance between the centre of gravity and the waterline (m) (+ if centre of gravity is above the waterline, - if it is below)
- d = mean moulded draught of the ship (m)
- s = factor as shown in table 4.

Table 1 Values of factor X1

B/d	X1
≤ 2.4	1.0
2.5	0.98
2.6	0.96
2.7	0.95
2.8	0.93
2.9	0.91
3.0	0.90
3.1	0.88
3.2	0.86
3.3	0.84
3.4	0.82
≥3.5	0.80

Table 2 Values of factor X2

CB	X2
≤0.45	0.75
0.50	0.82
0.55	0.89
0.60	0.95
0.65	0.97
≥0.70	1.0

Table 3 Values of factor X3

Ak.100/(LB)	K
0	1.0
1.0	0.98
1.5	0.95
2.0	0.88
2.5	0.79
3.0	0.74
3.5	0.72
≥4.0	0.70

Table 4 Values of factor X4

T	S
≤6	0.100
7	0.098
8	0.093
12	0.065
14	0.053
16	0.044
18	0.038
≥20	0.035

(Intermediate values in tables 1-4 should be obtained by linear interpolation.)

Rolling period $T = \frac{2CB}{\sqrt{GM}}$ (s)

Where:

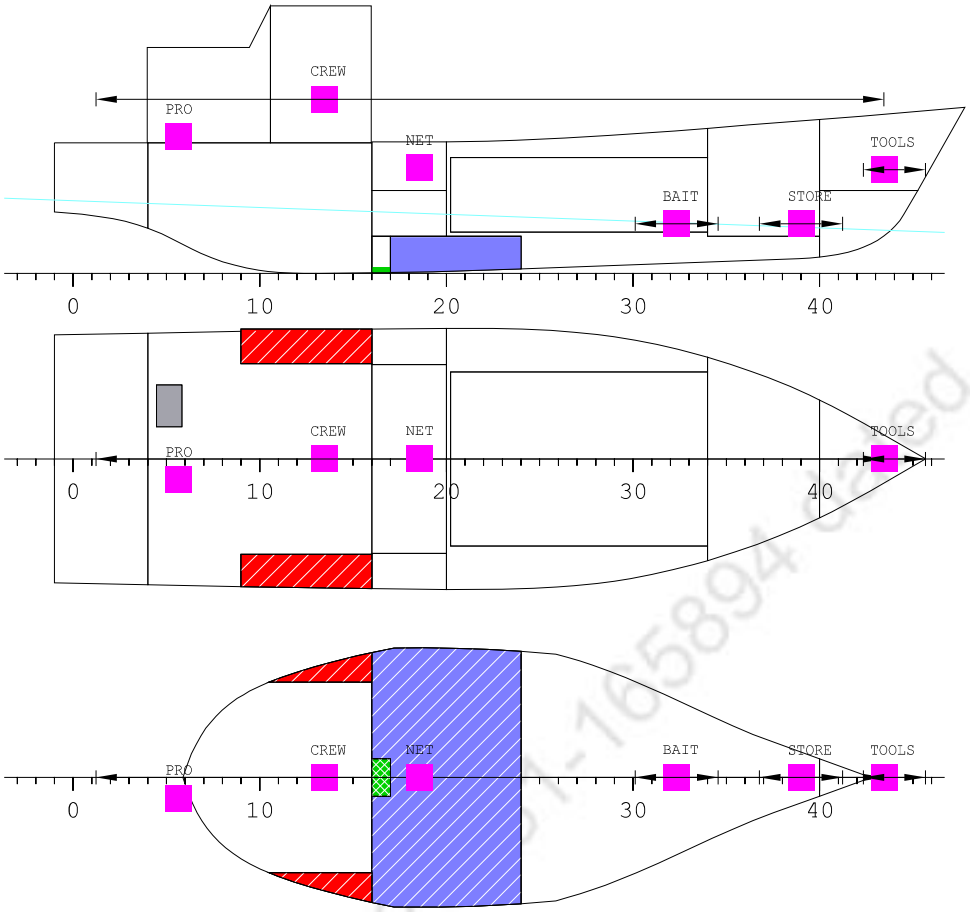
- C = 0.373 + 0.023 (B/d) – 0.043 (L/100)
- L = length of the ship at waterline (m)
- B = moulded breadth of the ship (m)
- d = mean moulded draught of the ship (m)
- CB = block coefficient
- Ak = total overall area of bilge keels, or area of the lateral projection of the bar keel, or sum of these areas (m2)
- GM = metacentric height corrected for free surface effect (m).

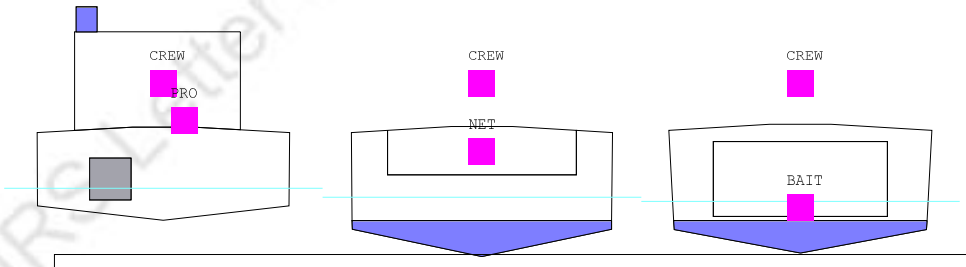
4. LOADING CONDITIONS

LOADING CONDITIONS SUMMARY TABLE

LOADING CONDITION	T m	TR m	HEEL deg	GM m	DISP t	KG m
FULL LOAD DEPART. W/O ICE	1.402	-0.738	0.0	2.084	88.8	1.96
FULL LOAD ARR. W/O ICE	1.433	-0.261	0.4	1.898	88.7	2.15
FULL LOAD DEPART. WITH ICE	1.616	-0.269	0.0	1.615	108.8	1.99
FULL LOAD ARR. WITH ICE	1.433	-0.261	0.4	1.898	88.7	2.15
DEPT. 50% CONS. & 100% CATCH W/O ICE	1.518	-0.271	0.2	1.766	98.1	2.05
DEPT. 50% & 100% CATCH WITH ICE	1.518	-0.271	0.2	1.766	98.1	2.05
ARR. 10% CONS & 40% CATCH W/O ICE	1.303	-0.550	0.4	2.286	76.7	2.15
ARR. 10% CONS & 40% CATCH WITH ICE	1.412	-0.308	0.4	1.954	86.7	2.15
ARR. 10% CONS & 20% CATCH W/O ICE	1.259	-0.651	0.4	2.445	72.7	2.16
ARR. 10% CONS & 20% CATCH WITH ICE	1.369	-0.403	0.4	2.076	82.7	2.15
ARR. 10% CONS & 0% CATCH W/O ICE	1.214	-0.757	0.4	2.617	68.7	2.16
ARR. 10% CONS & 0% CATCH WITH ICE	1.325	-0.500	0.4	2.212	78.7	2.15

FULL LOAD DEPART. W/O ICE





Machinery Sp.	Cold Room Store	Diesel Oil
Shop Store	Void	Fresh Water
FISH NET	Ballast Water	Wheelhouse
Accommodation	BIO TOILET	

FULL LOAD DEPART. W/O ICE

Floating Position - Intact condition

Draught at AP (moulded)	1.758 m
Draught at FP (moulded)	1.020 m
Mean Draught (moulded)	1.402 m
Trim (+ by Bow)	-0.738 m
Heel (+ PS)	0.0 deg
KM above moulded BL	4.412 m
KG above moulded BL	1.96 m
GM0 (solid)	2.450 m
Free Surface Correction	0.365 m
GM (liquid)	2.084 m
Density of Water	1.025 t/m3

LCB : 8.73147 m Fwd of AP
LCF : 8.72665 m Fwd of AP
MCT : 1.41 tm/cm
TPC : 1.08 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.2	15.00	0.00	1.20
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.0	7.87	0.00	0.11
CREW	0.6	6.50	0.00	4.20
Diesel Oil	6.7	6.13	0.00	1.53
Fresh Water	11.0	9.32	0.04	0.71
FISH NET	6.0	8.80	0.00	2.55
PROVISION	2.5	3.00	-0.50	3.30
STORE	2.5	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	31.2	8.93	0.00	1.64
Lightweight	57.6	8.68	0.00	2.14
Deadweight	31.2	8.93	0.00	1.64
Total weight	88.8	8.77	0.00	1.96

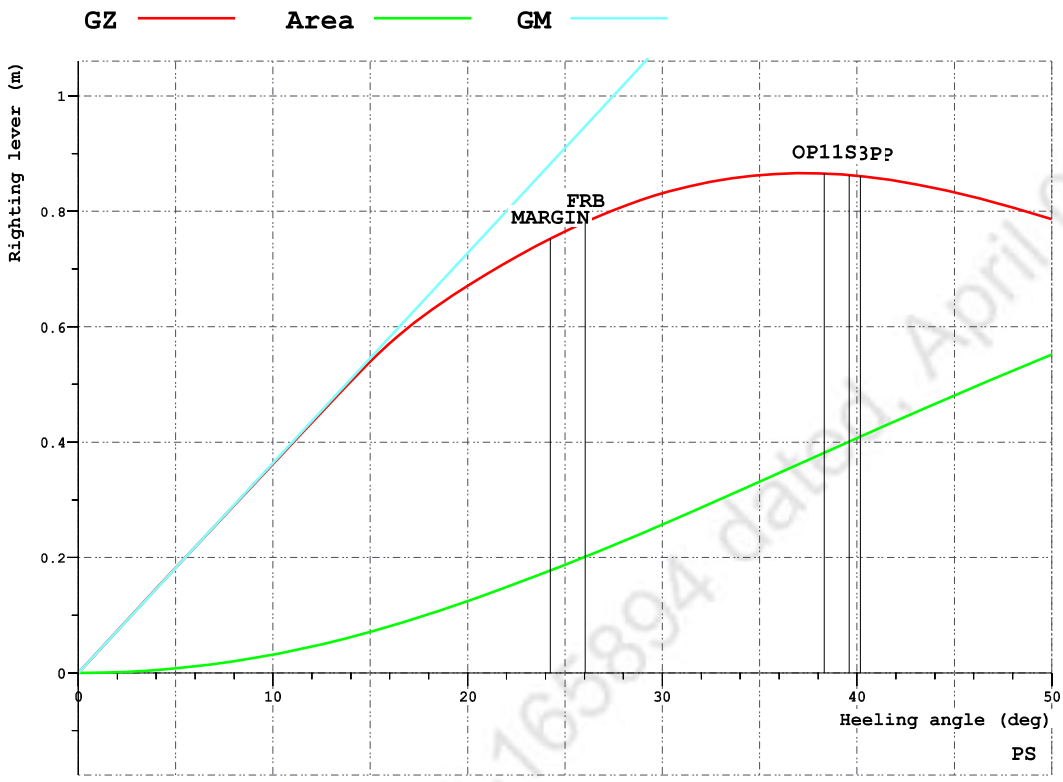
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	95.0	3.4	3.9	0.00
R.FOTK.1P	DO	95.0	3.4	3.9	0.00
TOTAL			6.7	7.8	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	95.0	10.8	10.8	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			11.0	11.0	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.257	mrad	OK
V.AREA40	0.382	mrad	OK
V.AREA3040	0.124	mrad	OK
V.GZ0.2	0.866	m	OK
V.MAXGZ25	37.286	deg	OK
V.GM0.35	2.084	m	OK
V.IMOWEATHER	2.023		OK
2008IS-A2.3.1.2	1.971	deg	OK

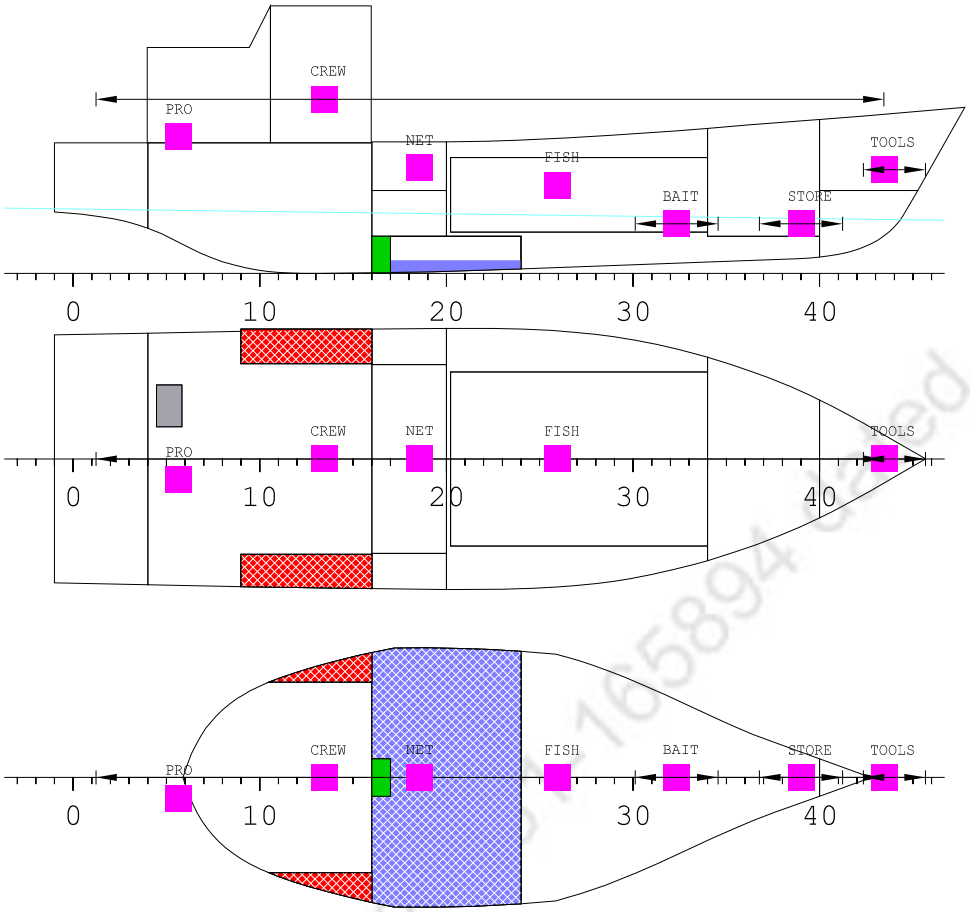
GZ CURVE DATA

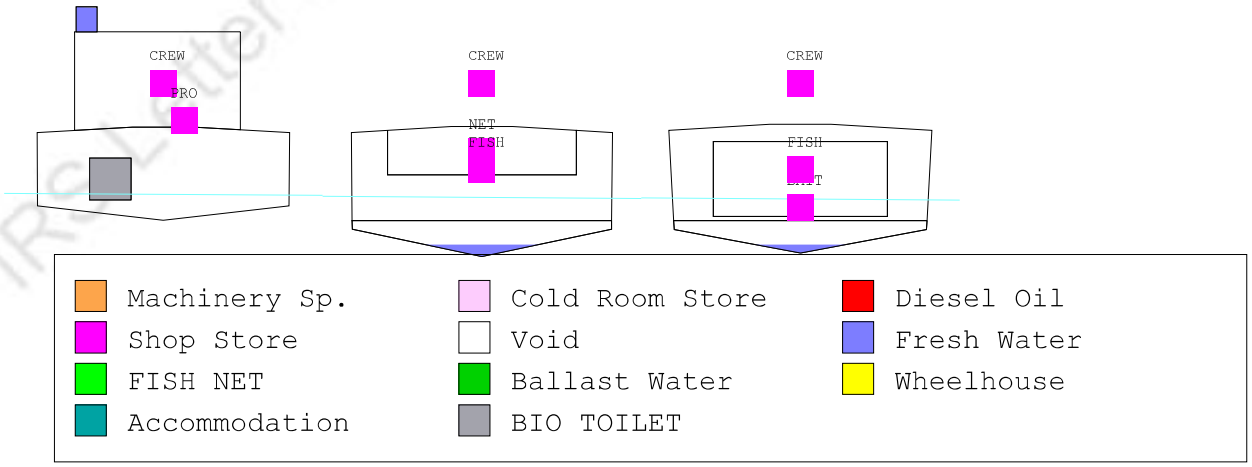
HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.402	-0.738	0.000	0.000
5.0	1.396	-0.738	0.183	0.008
10.0	1.376	-0.721	0.363	0.032
15.0	1.334	-0.676	0.539	0.071
20.0	1.262	-0.615	0.671	0.124
30.0	1.035	-0.461	0.831	0.257
40.0	0.742	-0.357	0.862	0.407
50.0	0.420	-0.310	0.786	0.552

RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	40.2	1.928
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	1.928
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	39.6	1.988
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	1.988
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.625
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.390
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.425
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.425
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.425
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	3.012
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	38.3	1.969
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.422

FULL LOAD ARR. W/O ICE





FULL LOAD ARR. W/O ICE

Floating Position - Intact condition

Draught at AP (moulded)	1.559 m
Draught at FP (moulded)	1.298 m
Mean Draught (moulded)	1.433 m
Trim (+ by Bow)	-0.261 m
Heel (+ PS)	0.4 deg
KM above moulded BL	4.414 m
KG above moulded BL	2.15 m
GM0 (solid)	2.263 m
Free Surface Correction	0.366 m
GM (liquid)	1.898 m
Density of Water	1.025 t/m3

LCB : 9.50562 m Fwd of AP
LCF : 8.82387 m Fwd of AP
MCT : 1.46 tm/cm
TPC : 1.09 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.0	0.00	0.00	0.00
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.3	7.87	0.00	0.49
CREW	0.6	6.50	0.00	4.20
Diesel Oil	0.7	6.48	0.00	0.79
FISH	20.0	12.13	0.00	2.13
Fresh Water	1.4	8.20	0.34	1.23
FISH NET	6.0	8.80	0.00	2.55
PROVISION	0.2	3.00	-0.50	3.30
STORE	0.2	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	31.1	11.08	0.04	2.17
Lightweight	57.6	8.68	0.00	2.14
Deadweight	31.1	11.08	0.04	2.17
Total weight	88.7	9.52	0.01	2.15

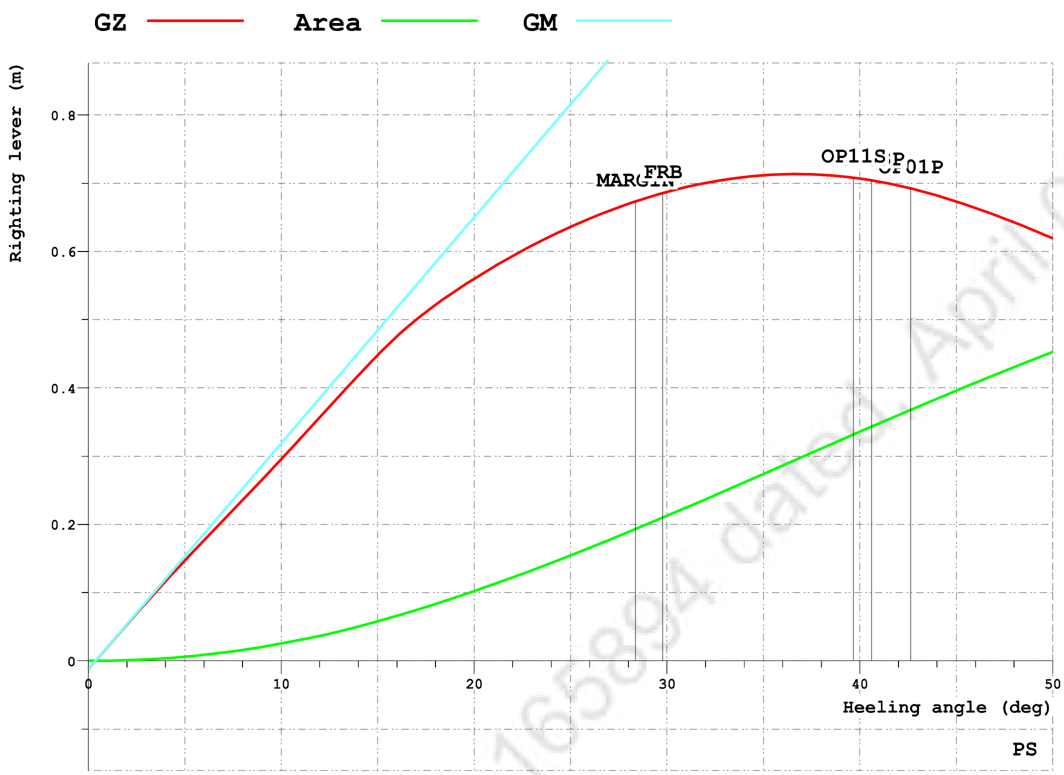
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	10.0	0.4	0.4	0.00
R.FOTK.1P	DO	10.0	0.4	0.4	0.00
TOTAL			0.7	0.8	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	10.0	1.1	1.1	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			1.4	1.4	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.212	mrad	OK
V.AREA40	0.332	mrad	OK
V.AREA3040	0.119	mrad	OK
V.GZ0.2	0.713	m	OK
V.MAXGZ25	36.728	deg	OK
V.GM0.35	1.898	m	OK
V.IMOWEATHER	1.858		OK
2008IS-A2.3.1.2	2.582	deg	OK

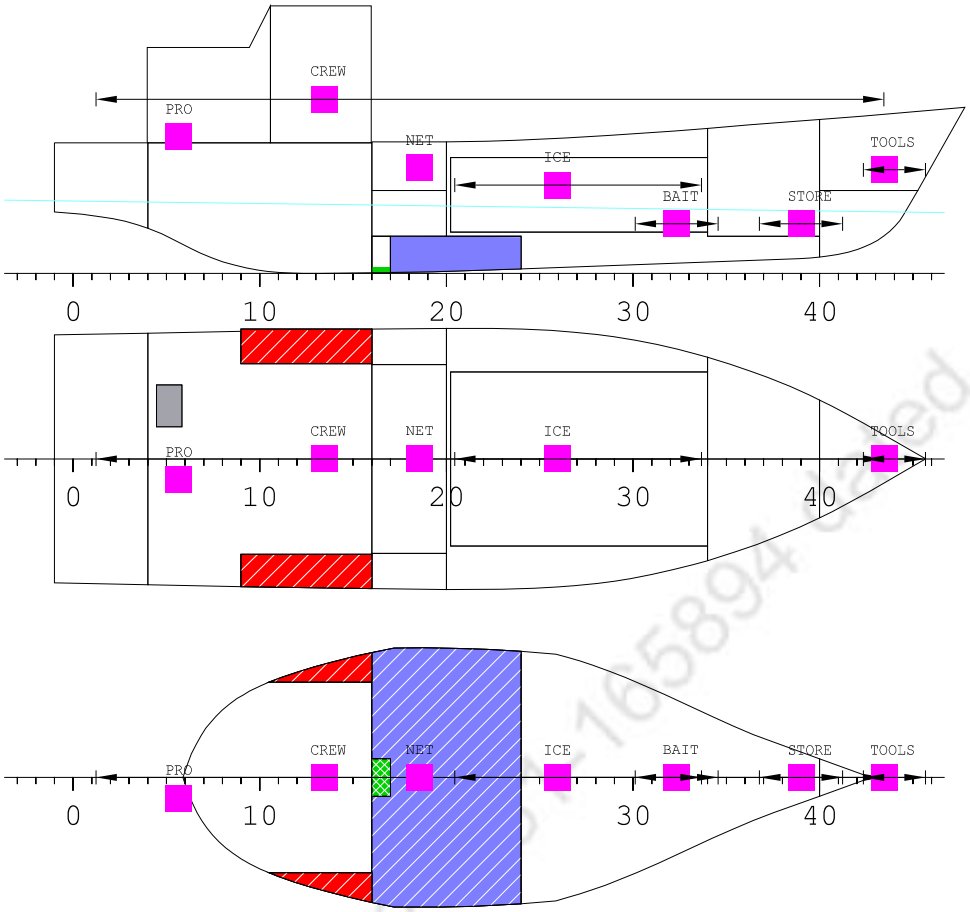
GZ CURVE DATA

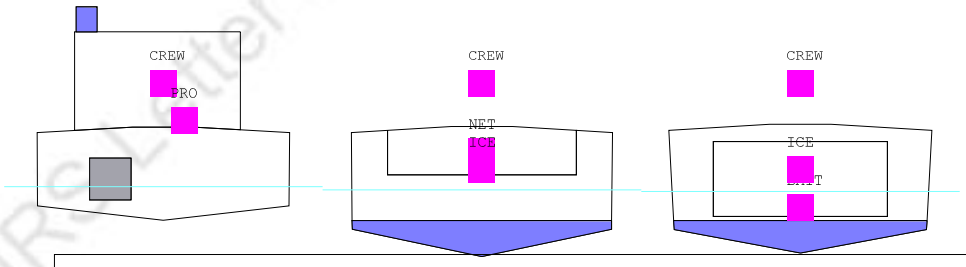
HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.433	-0.261	-0.012	0.000
0.4	1.433	-0.261	0.000	0.000
5.0	1.426	-0.247	0.147	0.006
10.0	1.401	-0.194	0.295	0.025
15.0	1.359	-0.113	0.448	0.058
20.0	1.286	-0.021	0.560	0.102
30.0	1.056	0.176	0.687	0.212
40.0	0.753	0.358	0.707	0.336
50.0	0.423	0.480	0.619	0.453

RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	42.6	1.956
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	1.994
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	40.6	1.977
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	2.015
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.709
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.542
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.581
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.581
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.581
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	2.727
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	39.7	1.970
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.582

FULL LOAD DEPART. WITH ICE





Machinery Sp.	Cold Room Store	Diesel Oil
Shop Store	Void	Fresh Water
FISH NET	Ballast Water	Wheelhouse
Accommodation	BIO TOILET	

FULL LOAD DEPART. WITH ICE

Floating Position - Intact condition

Draught at AP (moulded)	1.745 m
Draught at FP (moulded)	1.476 m
Mean Draught (moulded)	1.616 m
Trim (+ by Bow)	-0.269 m
Heel (+ PS)	0.0 deg
KM above moulded BL	3.907 m
KG above moulded BL	1.99 m
GM0 (solid)	1.914 m
Free Surface Correction	0.298 m
GM (liquid)	1.615 m
Density of Water	1.025 t/m3

LCB : 9.37313 m Fwd of AP
LCF : 8.87032 m Fwd of AP
MCT : 1.49 tm/cm
TPC : 1.1 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.2	15.00	0.00	1.20
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.0	7.87	0.00	0.11
CREW	0.6	6.50	0.00	4.20
Diesel Oil	6.7	6.13	0.00	1.53
Fresh Water	11.0	9.32	0.04	0.71
ICE	20.0	12.13	0.00	2.13
FISH NET	6.0	8.80	0.00	2.55
PROVISION	2.5	3.00	-0.50	3.30
STORE	2.5	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	51.2	10.18	0.00	1.83
Lightweight	57.6	8.68	0.00	2.14
Deadweight	51.2	10.18	0.00	1.83
Total weight	108.8	9.39	0.00	1.99

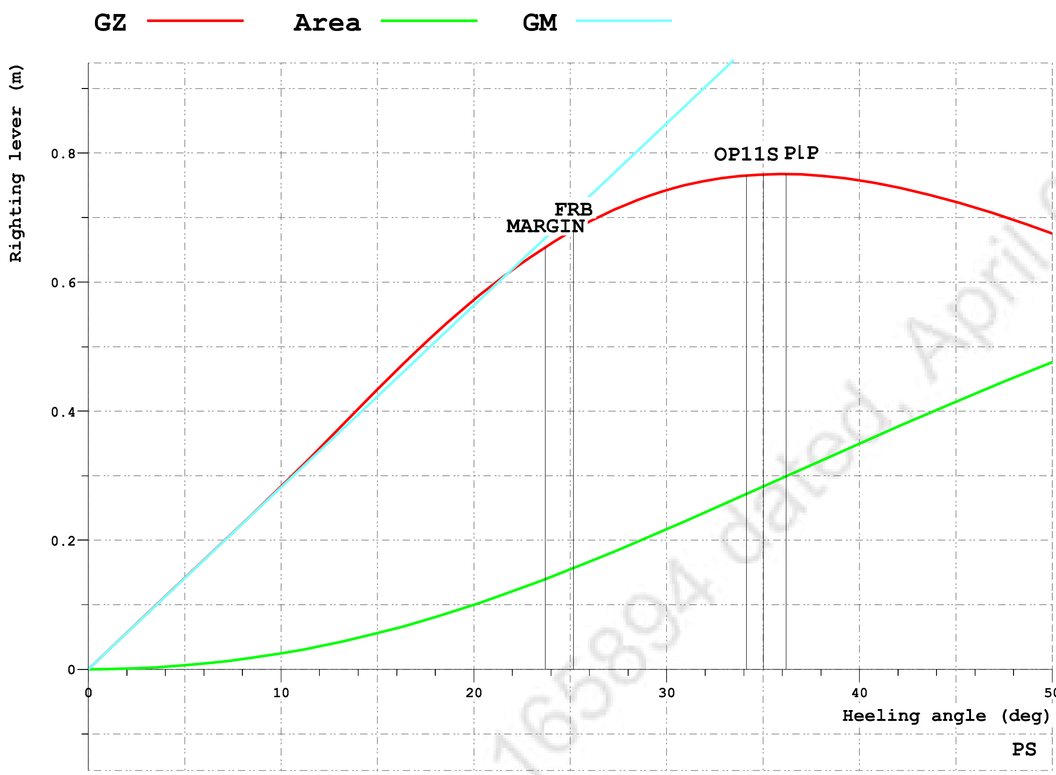
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	95.0	3.4	3.9	0.00
R.FOTK.1P	DO	95.0	3.4	3.9	0.00
TOTAL			6.7	7.8	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	95.0	10.8	10.8	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			11.0	11.0	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.217	mrad	OK
V.AREA40	0.272	mrad	OK
V.AREA3040	0.055	mrad	OK
V.GZ0.2	0.765	m	OK
V.MAXGZ25	35.949	deg	OK
V.GM0.35	1.615	m	OK
V.IMOWEATHER	1.818		OK
2008IS-A2.3.1.2	1.923	deg	OK

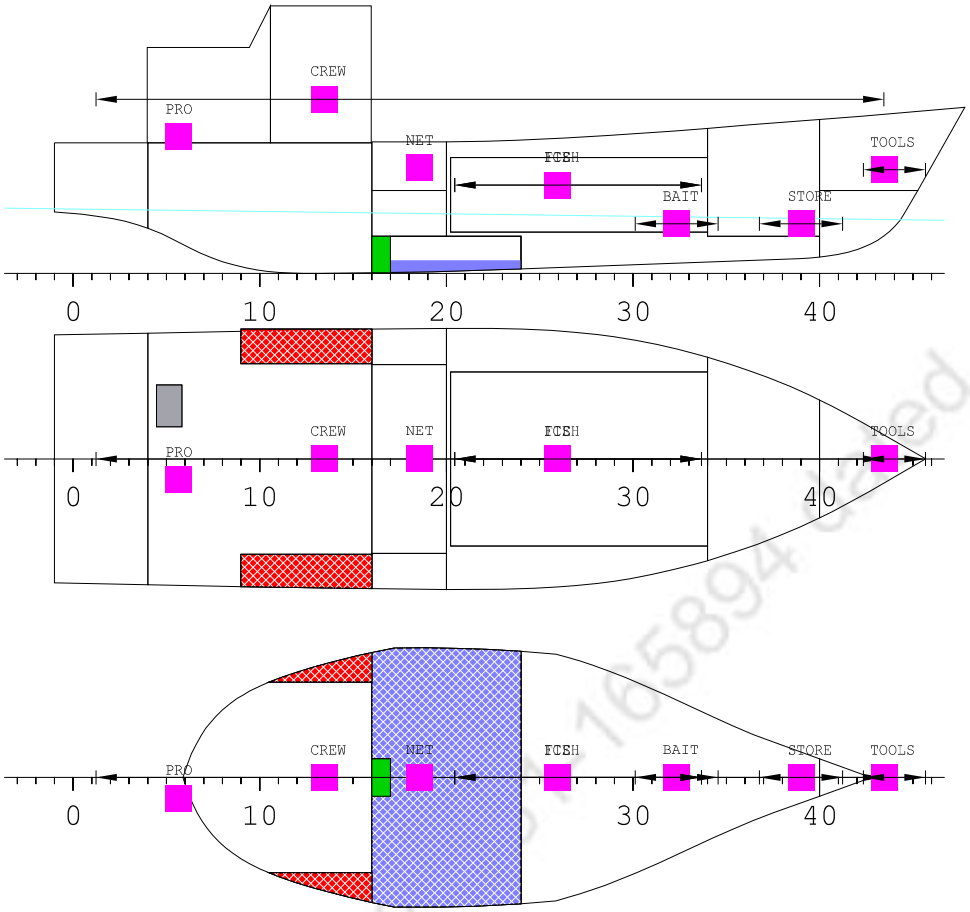
GZ CURVE DATA

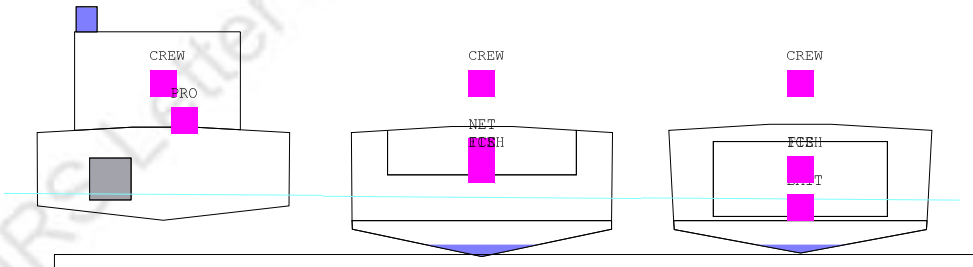
HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.616	-0.269	0.000	0.000
5.0	1.609	-0.269	0.142	0.006
10.0	1.587	-0.254	0.283	0.025
15.0	1.547	-0.206	0.434	0.056
20.0	1.485	-0.132	0.572	0.100
30.0	1.274	0.026	0.742	0.217
40.0	1.006	0.119	0.758	0.350
50.0	0.708	0.162	0.675	0.476

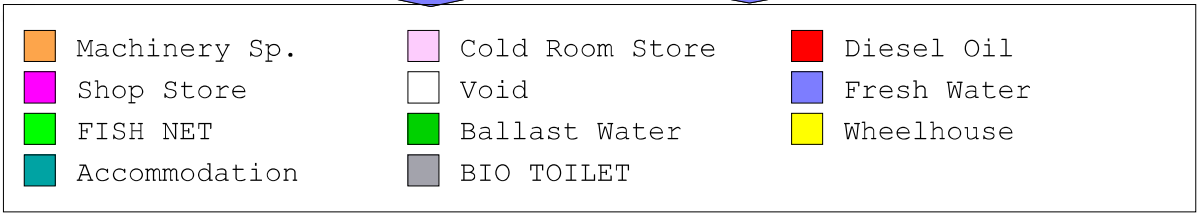
RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	36.2	1.791
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	1.791
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	35.0	1.813
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	1.813
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.522
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.351
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.385
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.385
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.385
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	2.548
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	34.1	1.806
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.384

FULL LOAD ARR. WITH ICE







FULL LOAD ARR. WITH ICE

Floating Position - Intact condition

Draught at AP (moulded) 1.559 m
Draught at FP (moulded) 1.298 m
Mean Draught (moulded) 1.433 m

Trim (+ by Bow) -0.261 m
Heel (+ PS) 0.4 deg

KM above moulded BL 4.414 m
KG above moulded BL 2.15 m
GM0 (solid) 2.263 m
Free Surface Correction 0.366 m
GM (liquid) 1.898 m
Density of Water 1.025 t/m3

LCB : 9.50562 m Fwd of AP
LCF : 8.82387 m Fwd of AP
MCT : 1.46 tm/cm
TPC : 1.09 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.0	0.00	0.00	0.00
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.3	7.87	0.00	0.49
CREW	0.6	6.50	0.00	4.20
Diesel Oil	0.7	6.48	0.00	0.79
FISH	10.0	12.13	0.00	2.13
Fresh Water	1.4	8.20	0.34	1.23
ICE	10.0	12.13	0.00	2.13
FISH NET	6.0	8.80	0.00	2.55
PROVISION	0.2	3.00	-0.50	3.30
STORE	0.2	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	31.1	11.08	0.04	2.17
Lightweight	57.6	8.68	0.00	2.14
Deadweight	31.1	11.08	0.04	2.17
Total weight	88.7	9.52	0.01	2.15

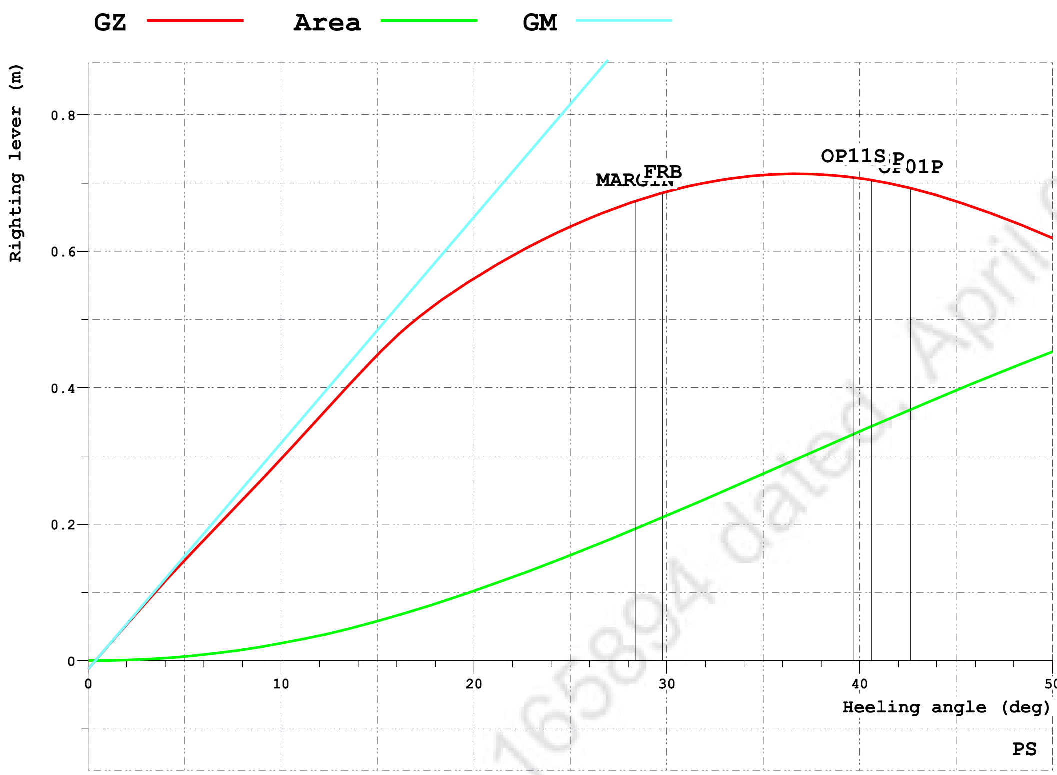
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	10.0	0.4	0.4	0.00
R.FOTK.1P	DO	10.0	0.4	0.4	0.00
TOTAL			0.7	0.8	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	10.0	1.1	1.1	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			1.4	1.4	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.212	mrad	OK
V.AREA40	0.332	mrad	OK
V.AREA3040	0.119	mrad	OK
V.GZ0.2	0.713	m	OK
V.MAXGZ25	36.728	deg	OK
V.GM0.35	1.898	m	OK
V.IMOWEATHER	1.858		OK
2008IS-A2.3.1.2	2.583	deg	OK

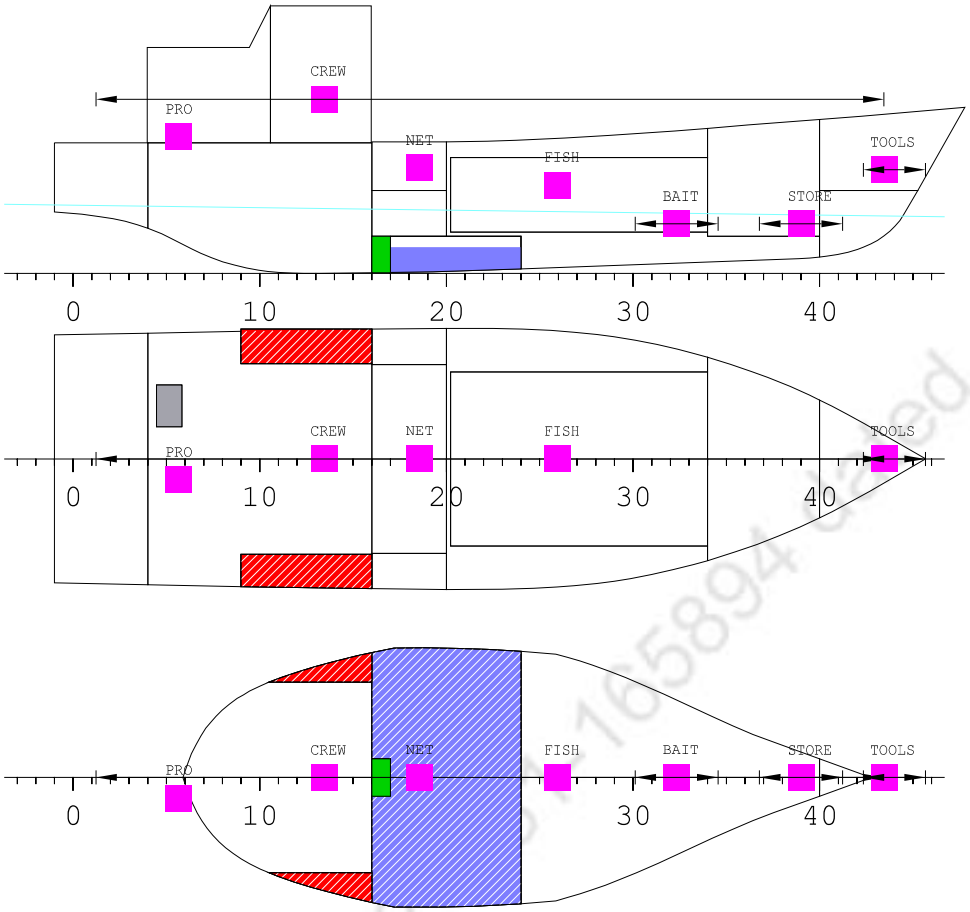
GZ CURVE DATA

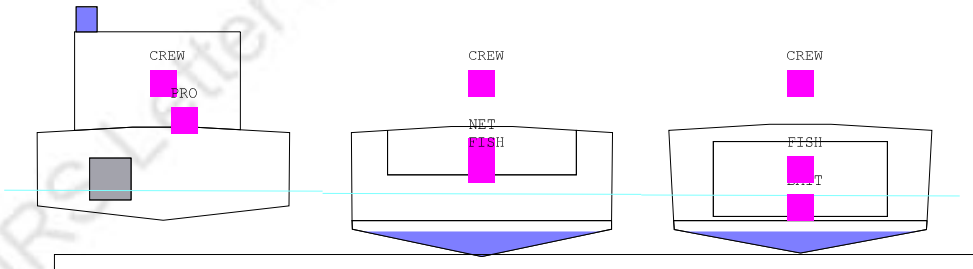
HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.433	-0.261	-0.012	0.000
0.4	1.433	-0.261	0.000	0.000
5.0	1.426	-0.247	0.147	0.006
10.0	1.401	-0.194	0.295	0.025
15.0	1.359	-0.113	0.448	0.058
20.0	1.286	-0.021	0.560	0.102
30.0	1.056	0.176	0.687	0.212
40.0	0.753	0.358	0.707	0.336
50.0	0.423	0.480	0.619	0.453

RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	42.6	1.956
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	1.994
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	40.6	1.977
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	2.015
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.709
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.542
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.581
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.581
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.581
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	2.727
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	39.7	1.970
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.582

DEPT. 50% CONS. & 100% CATCH W/O ICE





Machinery Sp.	Cold Room Store	Diesel Oil
Shop Store	Void	Fresh Water
FISH NET	Ballast Water	Wheelhouse
Accommodation	BIO TOILET	

DEPT. 50% CONS. & 100% CATCH W/O ICE

Floating Position - Intact condition

Draught at AP (moulded)	1.648 m
Draught at FP (moulded)	1.377 m
Mean Draught (moulded)	1.518 m
Trim (+ by Bow)	-0.271 m
Heel (+ PS)	0.2 deg
KM above moulded BL	4.147 m
KG above moulded BL	2.05 m
GM0 (solid)	2.097 m
Free Surface Correction	0.331 m
GM (liquid)	1.766 m
Density of Water	1.025 t/m3

LCB : 9.42637 m Fwd of AP
LCF : 8.84557 m Fwd of AP
MCT : 1.47 tm/cm
TPC : 1.1 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.0	0.00	0.00	0.00
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.3	7.87	0.00	0.49
CREW	0.6	6.50	0.00	4.20
Diesel Oil	3.5	6.17	0.00	1.15
FISH	20.0	12.13	0.00	2.13
Fresh Water	5.9	9.18	0.08	0.67
FISH NET	6.0	8.80	0.00	2.55
PROVISION	1.2	3.00	-0.50	3.30
STORE	1.2	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	40.5	10.52	0.01	1.92
Lightweight	57.6	8.68	0.00	2.14
Deadweight	40.5	10.52	0.01	1.92
Total weight	98.1	9.44	0.01	2.05

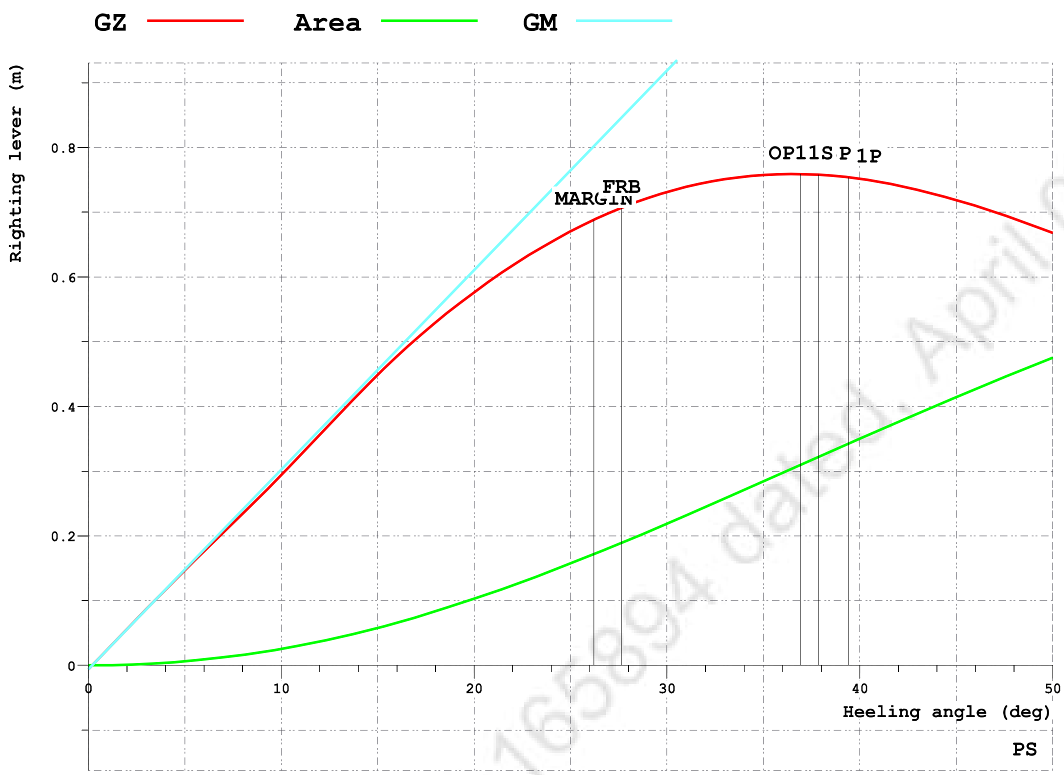
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	50.0	1.8	2.1	0.00
R.FOTK.1P	DO	50.0	1.8	2.1	0.00
TOTAL			3.5	4.1	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	50.0	5.7	5.7	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			5.9	5.9	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.219	mrad	OK
V.AREA40	0.310	mrad	OK
V.AREA3040	0.091	mrad	OK
V.GZ0.2	0.759	m	OK
V.MAXGZ25	36.520	deg	OK
V.GM0.35	1.766	m	OK
V.IMOWEATHER	1.893		OK
2008IS-A2.3.1.2	2.231	deg	OK

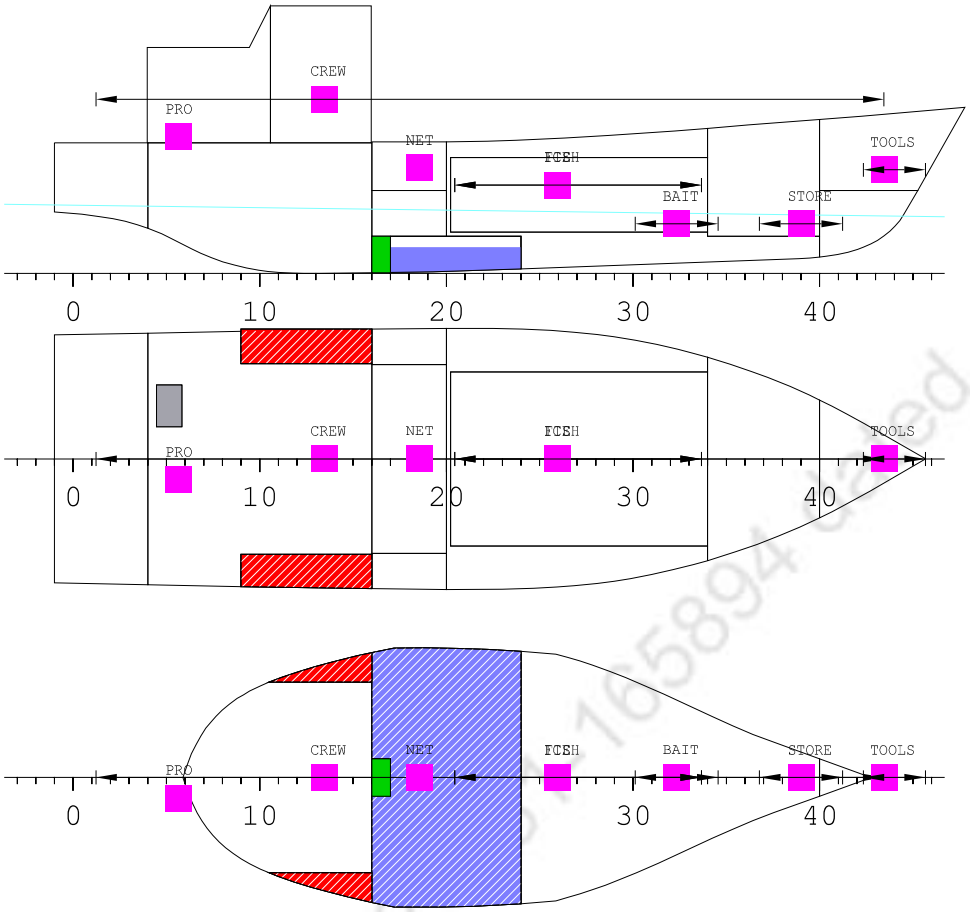
GZ CURVE DATA

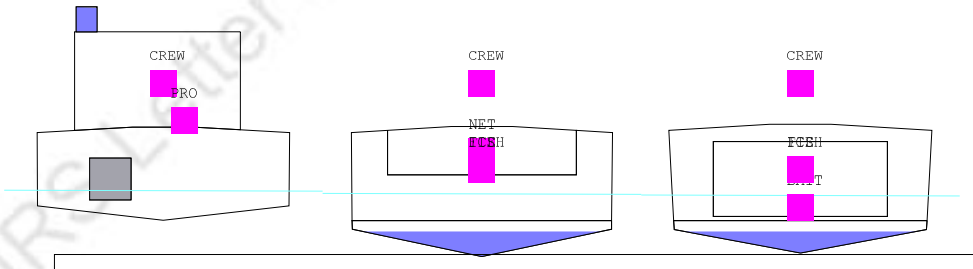
HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.518	-0.271	-0.006	0.000
0.2	1.518	-0.271	0.000	0.000
5.0	1.511	-0.268	0.147	0.006
10.0	1.488	-0.235	0.294	0.025
15.0	1.448	-0.168	0.449	0.058
20.0	1.380	-0.085	0.576	0.103
30.0	1.158	0.098	0.731	0.219
40.0	0.871	0.238	0.752	0.350
50.0	0.555	0.321	0.668	0.475

RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	39.4	1.879
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	1.898
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	37.9	1.900
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	1.921
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.621
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.451
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.487
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.488
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.488
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	2.648
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	36.9	1.893
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.488

DEPT. 50% & 100% CATCH WITH ICE





Machinery Sp.	Cold Room Store	Diesel Oil
Shop Store	Void	Fresh Water
FISH NET	Ballast Water	Wheelhouse
Accommodation	BIO TOILET	

DEPT. 50% & 100% CATCH WITH ICE

Floating Position - Intact condition

Draught at AP (moulded) 1.648 m
Draught at FP (moulded) 1.377 m
Mean Draught (moulded) 1.518 m

Trim (+ by Bow) -0.271 m
Heel (+ PS) 0.2 deg

KM above moulded BL 4.147 m
KG above moulded BL 2.05 m
GM0 (solid) 2.097 m
Free Surface Correction 0.331 m
GM (liquid) 1.766 m
Density of Water 1.025 t/m3

LCB : 9.42637 m Fwd of AP
LCF : 8.84557 m Fwd of AP
MCT : 1.47 tm/cm
TPC : 1.1 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.0	0.00	0.00	0.00
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.3	7.87	0.00	0.49
CREW	0.6	6.50	0.00	4.20
Diesel Oil	3.5	6.17	0.00	1.15
FISH	10.0	12.13	0.00	2.13
Fresh Water	5.9	9.18	0.08	0.67
ICE	10.0	12.13	0.00	2.13
FISH NET	6.0	8.80	0.00	2.55
PROVISION	1.2	3.00	-0.50	3.30
STORE	1.2	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	40.5	10.52	0.01	1.92
Lightweight	57.6	8.68	0.00	2.14
Deadweight	40.5	10.52	0.01	1.92
Total weight	98.1	9.44	0.01	2.05

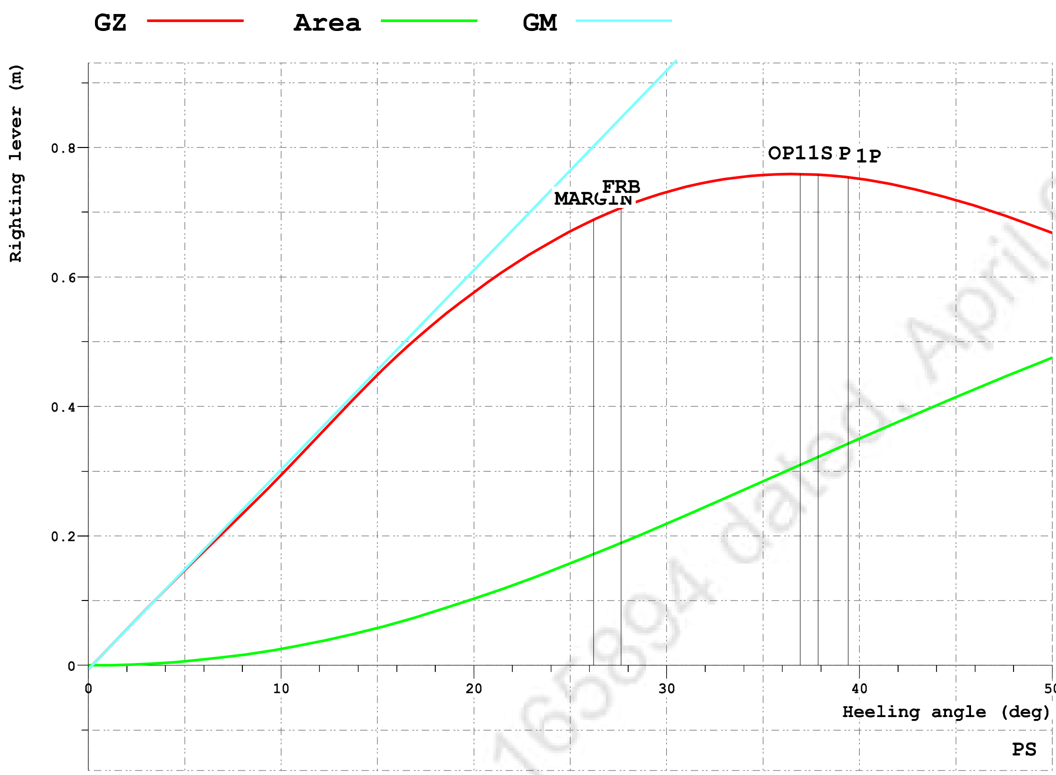
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	50.0	1.8	2.1	0.00
R.FOTK.1P	DO	50.0	1.8	2.1	0.00
TOTAL			3.5	4.1	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	50.0	5.7	5.7	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			5.9	5.9	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.219	mrad	OK
V.AREA40	0.310	mrad	OK
V.AREA3040	0.091	mrad	OK
V.GZ0.2	0.759	m	OK
V.MAXGZ25	36.520	deg	OK
V.GM0.35	1.766	m	OK
V.IMOWEATHER	1.893		OK
2008IS-A2.3.1.2	2.231	deg	OK

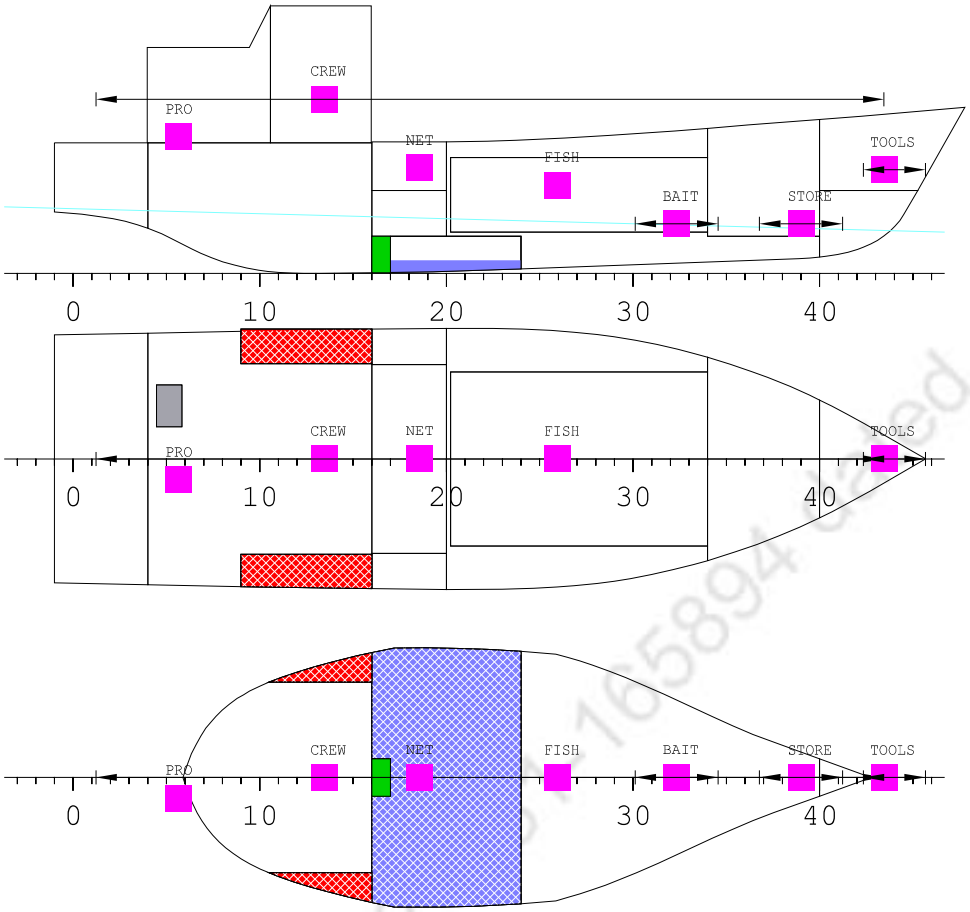
GZ CURVE DATA

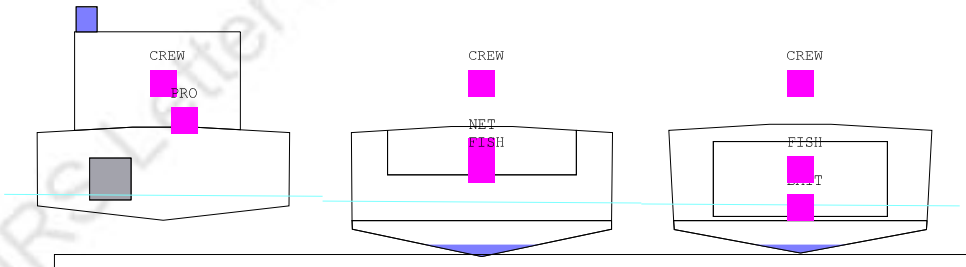
HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.518	-0.271	-0.006	0.000
0.2	1.518	-0.271	0.000	0.000
5.0	1.511	-0.268	0.147	0.006
10.0	1.488	-0.235	0.294	0.025
15.0	1.448	-0.168	0.449	0.058
20.0	1.380	-0.085	0.576	0.103
30.0	1.158	0.098	0.731	0.219
40.0	0.871	0.238	0.752	0.350
50.0	0.555	0.321	0.668	0.475

RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	39.4	1.879
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	1.898
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	37.9	1.900
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	1.921
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.621
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.451
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.487
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.488
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.488
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	2.648
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	36.9	1.893
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.488

ARR. 10% CONS & 40% CATCH W/O ICE





Machinery Sp.	Cold Room Store	Diesel Oil
Shop Store	Void	Fresh Water
FISH NET	Ballast Water	Wheelhouse
Accommodation	BIO TOILET	

ARR. 10% CONS & 40% CATCH W/O ICE

Floating Position - Intact condition

Draught at AP (moulded)	1.568 m
Draught at FP (moulded)	1.018 m
Mean Draught (moulded)	1.303 m
Trim (+ by Bow)	-0.550 m
Heel (+ PS)	0.4 deg
KM above moulded BL	4.863 m
KG above moulded BL	2.15 m
GM0 (solid)	2.709 m
Free Surface Correction	0.423 m
GM (liquid)	2.286 m
Density of Water	1.025 t/m3

LCB : 9.07878 m Fwd of AP
LCF : 8.71449 m Fwd of AP
MCT : 1.41 tm/cm
TPC : 1.08 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.0	0.00	0.00	0.00
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.3	7.87	0.00	0.49
CREW	0.6	6.50	0.00	4.20
Diesel Oil	0.7	6.48	0.00	0.79
FISH	8.0	12.13	0.00	2.13
Fresh Water	1.4	8.20	0.34	1.23
FISH NET	6.0	8.80	0.00	2.55
PROVISION	0.2	3.00	-0.50	3.30
STORE	0.2	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	19.1	10.42	0.06	2.20
Lightweight	57.6	8.68	0.00	2.14
Deadweight	19.1	10.42	0.06	2.20
Total weight	76.7	9.11	0.01	2.15

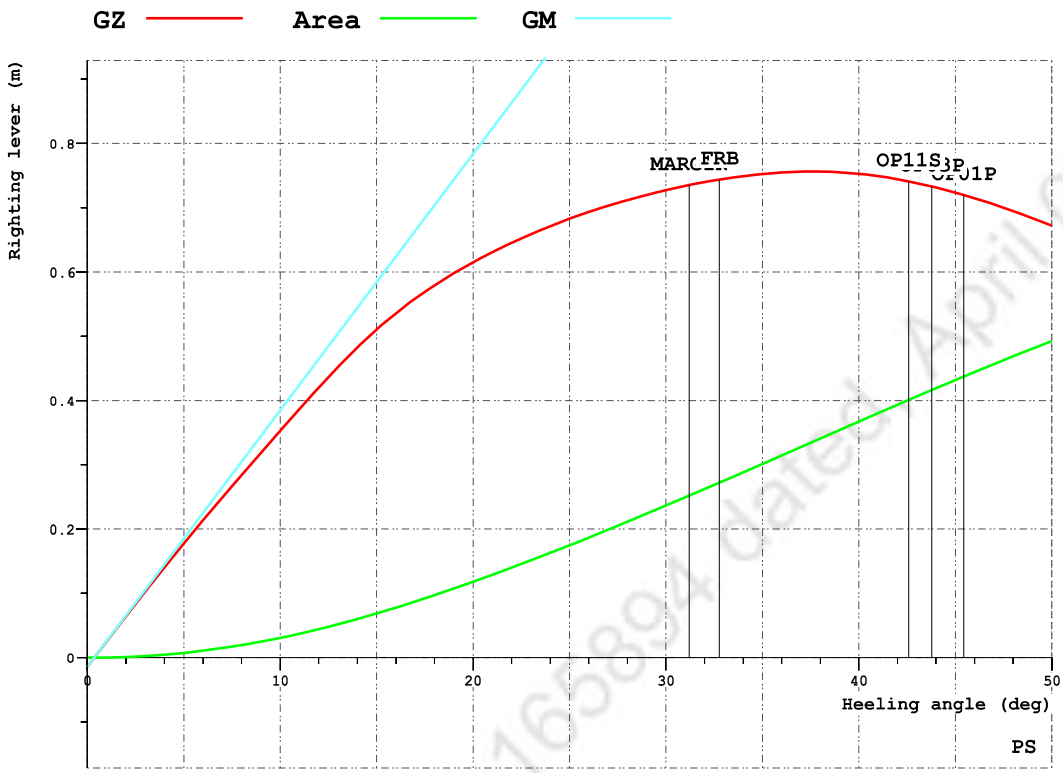
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	10.0	0.4	0.4	0.00
R.FOTK.1P	DO	10.0	0.4	0.4	0.00
TOTAL			0.7	0.8	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	10.0	1.1	1.1	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			1.4	1.4	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.236	mrad	OK
V.AREA40	0.367	mrad	OK
V.AREA3040	0.131	mrad	OK
V.GZ0.2	0.756	m	OK
V.MAXGZ25	37.624	deg	OK
V.GM0.35	2.286	m	OK
V.IMOWEATHER	1.845		OK
2008IS-A2.3.1.2	2.574	deg	OK

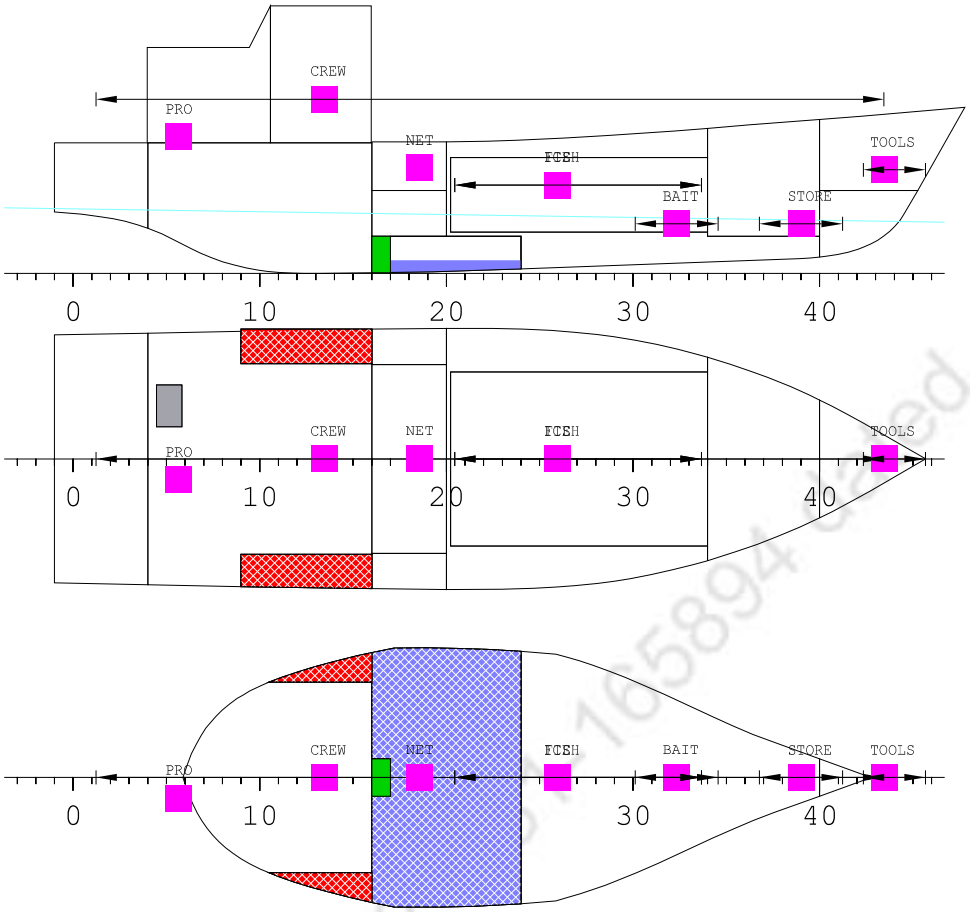
GZ CURVE DATA

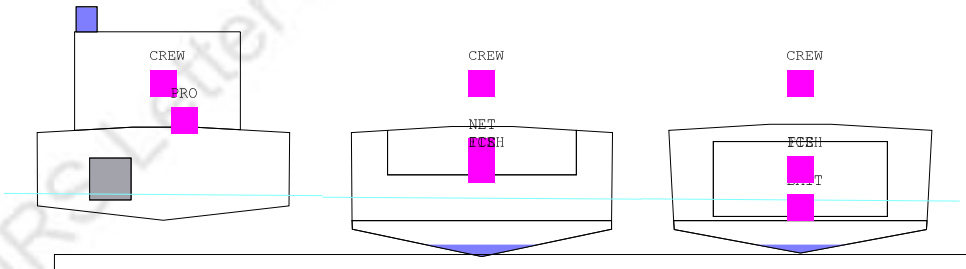
HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.303	-0.550	-0.014	0.000
0.4	1.303	-0.550	0.000	0.000
5.0	1.296	-0.536	0.178	0.007
10.0	1.272	-0.482	0.353	0.030
15.0	1.224	-0.410	0.510	0.068
20.0	1.144	-0.326	0.615	0.118
30.0	0.907	-0.136	0.727	0.236
40.0	0.593	0.057	0.753	0.367
50.0	0.249	0.185	0.672	0.493

RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	45.4	2.040
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	2.076
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	43.8	2.084
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	2.121
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.771
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.564
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.603
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.603
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.603
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	3.011
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	42.6	2.069
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.603

ARR. 10% CONS & 40% CATCH WITH ICE





Machinery Sp.	Cold Room Store	Diesel Oil
Shop Store	Void	Fresh Water
FISH NET	Ballast Water	Wheelhouse
Accommodation	BIO TOILET	

ARR. 10% CONS & 40% CATCH WITH ICE

Floating Position - Intact condition

Draught at AP (moulded)	1.560 m
Draught at FP (moulded)	1.252 m
Mean Draught (moulded)	1.412 m
Trim (+ by Bow)	-0.308 m
Heel (+ PS)	0.4 deg
KM above moulded BL	4.480 m
KG above moulded BL	2.15 m
GM0 (solid)	2.328 m
Free Surface Correction	0.374 m
GM (liquid)	1.954 m
Density of Water	1.025 t/m3

LCB : 9.44251 m Fwd of AP
LCF : 8.81309 m Fwd of AP
MCT : 1.46 tm/cm
TPC : 1.09 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.0	0.00	0.00	0.00
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.3	7.87	0.00	0.49
CREW	0.6	6.50	0.00	4.20
Diesel Oil	0.7	6.48	0.00	0.79
FISH	8.0	12.13	0.00	2.13
Fresh Water	1.4	8.20	0.34	1.23
ICE	10.0	12.13	0.00	2.13
FISH NET	6.0	8.80	0.00	2.55
PROVISION	0.2	3.00	-0.50	3.30
STORE	0.2	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	29.1	11.00	0.04	2.17
Lightweight	57.6	8.68	0.00	2.14
Deadweight	29.1	11.00	0.04	2.17
Total weight	86.7	9.46	0.01	2.15

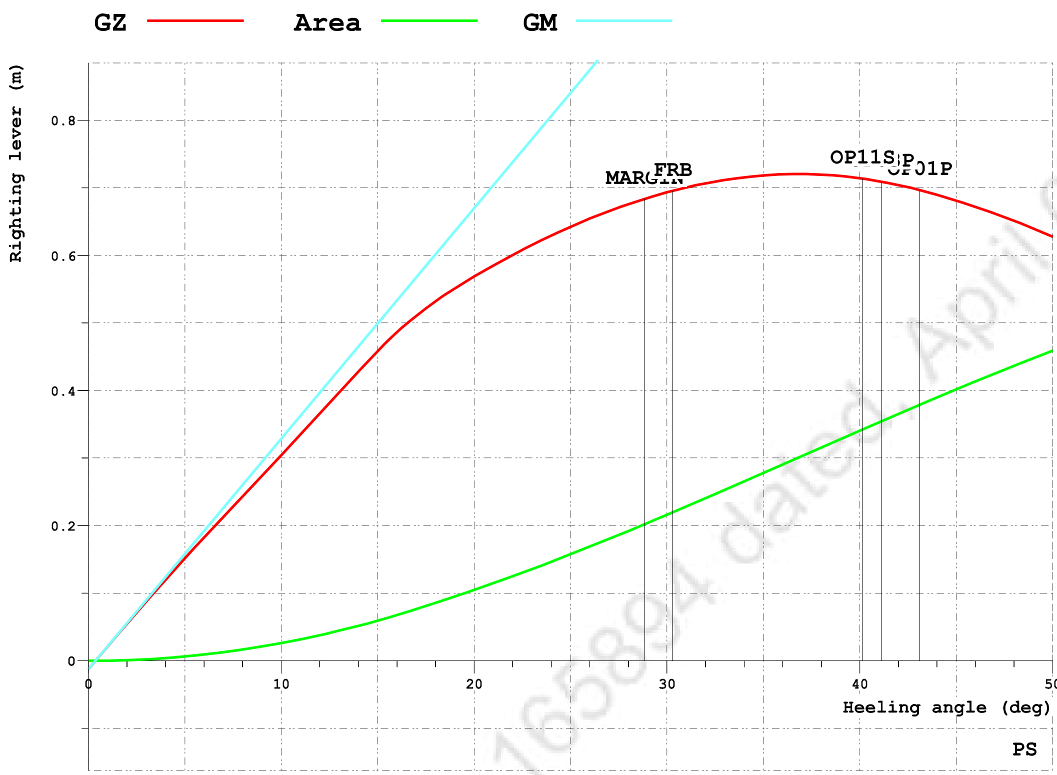
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	10.0	0.4	0.4	0.00
R.FOTK.1P	DO	10.0	0.4	0.4	0.00
TOTAL			0.7	0.8	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	10.0	1.1	1.1	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			1.4	1.4	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.216	mrad	OK
V.AREA40	0.341	mrad	OK
V.AREA3040	0.125	mrad	OK
V.GZ0.2	0.720	m	OK
V.MAXGZ25	36.854	deg	OK
V.GM0.35	1.954	m	OK
V.IMOWEATHER	1.865		OK
2008IS-A2.3.1.2	2.585	deg	OK

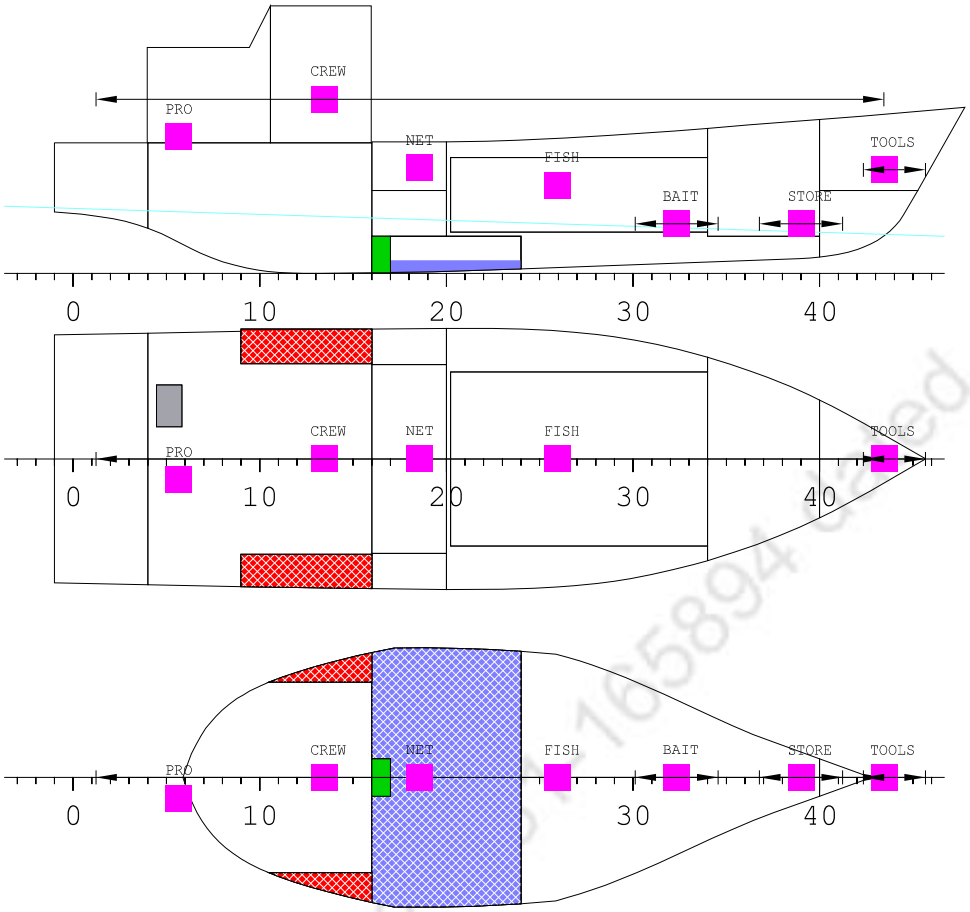
GZ CURVE DATA

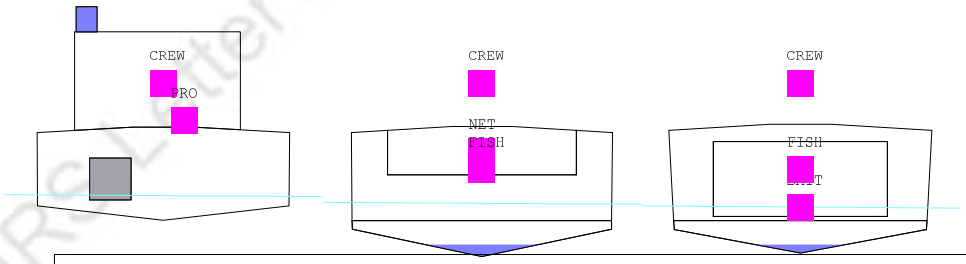
HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.412	-0.308	-0.013	0.000
0.4	1.412	-0.308	0.000	0.000
5.0	1.404	-0.294	0.151	0.006
10.0	1.380	-0.240	0.304	0.026
15.0	1.337	-0.159	0.458	0.059
20.0	1.263	-0.069	0.569	0.105
30.0	1.032	0.128	0.693	0.216
40.0	0.727	0.311	0.714	0.341
50.0	0.394	0.436	0.628	0.459

RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	43.1	1.970
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	2.007
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	41.1	1.994
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	2.033
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.719
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.545
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.584
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.585
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.585
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	2.774
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	40.1	1.986
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.586

ARR. 10% CONS & 20% CATCH W/O ICE





Machinery Sp.	Cold Room Store	Diesel Oil
Shop Store	Void	Fresh Water
FISH NET	Ballast Water	Wheelhouse
Accommodation	BIO TOILET	

ARR. 10% CONS & 20% CATCH W/O ICE

Floating Position - Intact condition

Draught at AP (moulded)	1.573 m
Draught at FP (moulded)	0.922 m
Mean Draught (moulded)	1.259 m
Trim (+ by Bow)	-0.651 m
Heel (+ PS)	0.4 deg
KM above moulded BL	5.047 m
KG above moulded BL	2.16 m
GM0 (solid)	2.891 m
Free Surface Correction	0.446 m
GM (liquid)	2.445 m
Density of Water	1.025 t/m3

LCB : 8.90591 m Fwd of AP
LCF : 8.65657 m Fwd of AP
MCT : 1.38 tm/cm
TPC : 1.07 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.0	0.00	0.00	0.00
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.3	7.87	0.00	0.49
CREW	0.6	6.50	0.00	4.20
Diesel Oil	0.7	6.48	0.00	0.79
FISH	4.0	12.13	0.00	2.13
Fresh Water	1.4	8.20	0.34	1.23
FISH NET	6.0	8.80	0.00	2.55
PROVISION	0.2	3.00	-0.50	3.30
STORE	0.2	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	15.1	9.96	0.07	2.22
Lightweight	57.6	8.68	0.00	2.14
Deadweight	15.1	9.96	0.07	2.22
Total weight	72.7	8.95	0.02	2.16

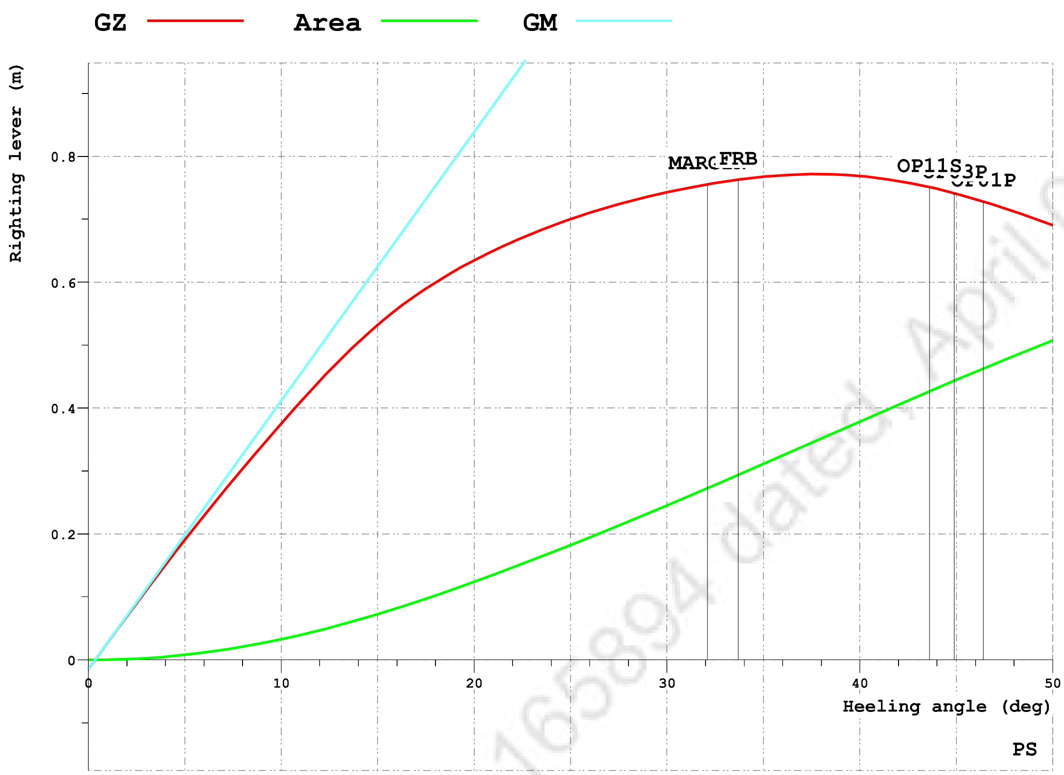
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	10.0	0.4	0.4	0.00
R.FOTK.1P	DO	10.0	0.4	0.4	0.00
TOTAL			0.7	0.8	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	10.0	1.1	1.1	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			1.4	1.4	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.245	mrad	OK
V.AREA40	0.379	mrad	OK
V.AREA3040	0.133	mrad	OK
V.GZ0.2	0.772	m	OK
V.MAXGZ25	37.786	deg	OK
V.GM0.35	2.445	m	OK
V.IMOWEATHER	1.799		OK
2008IS-A2.3.1.2	2.573	deg	OK

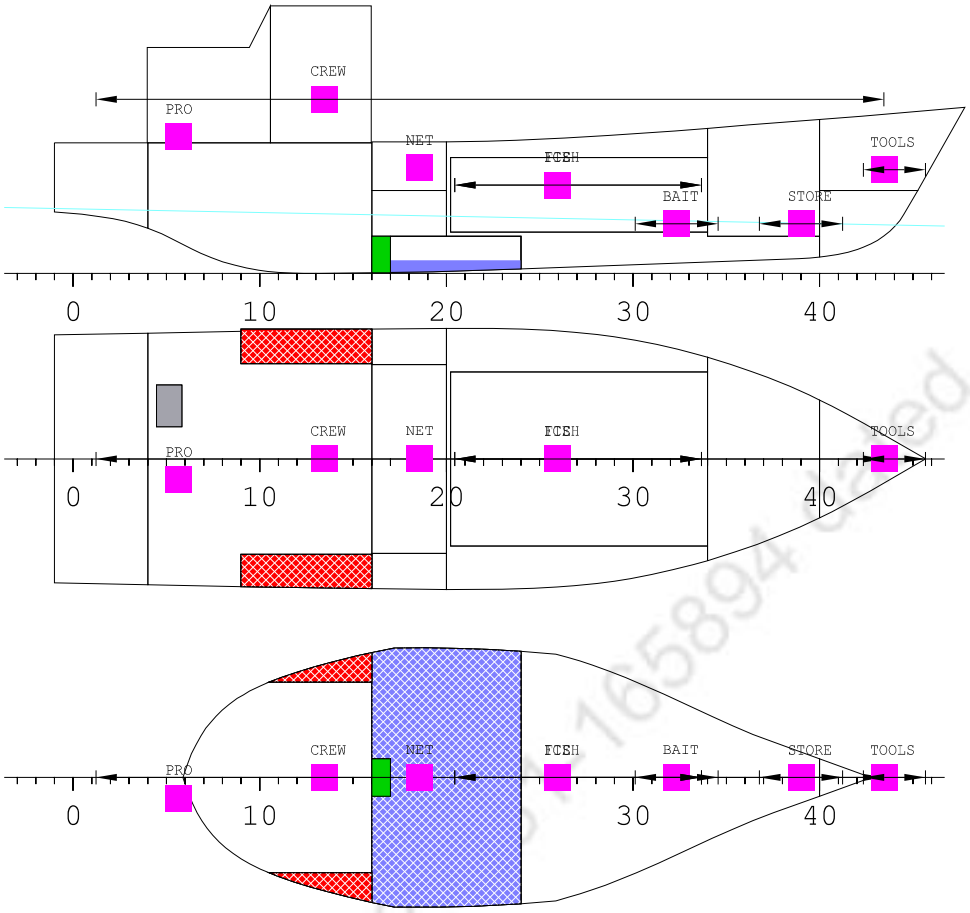
GZ CURVE DATA

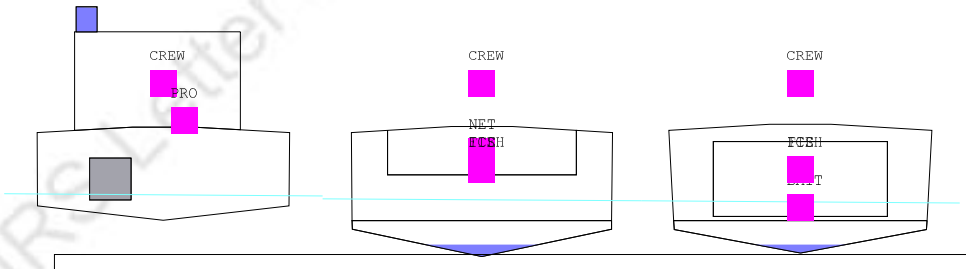
HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.259	-0.651	-0.015	0.000
0.4	1.259	-0.651	0.000	0.000
5.0	1.252	-0.638	0.190	0.008
10.0	1.227	-0.588	0.375	0.033
15.0	1.176	-0.520	0.532	0.073
20.0	1.094	-0.440	0.635	0.124
30.0	0.855	-0.252	0.743	0.245
40.0	0.537	-0.060	0.769	0.379
50.0	0.189	0.066	0.691	0.507

RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	46.4	2.068
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	2.103
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	44.9	2.120
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	2.156
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.791
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.570
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.609
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.610
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.610
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	3.109
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	43.6	2.103
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.609

ARR. 10% CONS & 20% CATCH WITH ICE





Machinery Sp.	Cold Room Store	Diesel Oil
Shop Store	Void	Fresh Water
FISH NET	Ballast Water	Wheelhouse
Accommodation	BIO TOILET	

ARR. 10% CONS & 20% CATCH WITH ICE

Floating Position - Intact condition

Draught at AP (moulded) 1.563 m
Draught at FP (moulded) 1.160 m
Mean Draught (moulded) 1.369 m

Trim (+ by Bow) -0.403 m
Heel (+ PS) 0.4 deg

KM above moulded BL 4.621 m
KG above moulded BL 2.15 m
GM0 (solid) 2.468 m
Free Surface Correction 0.392 m
GM (liquid) 2.076 m
Density of Water 1.025 t/m3

LCB : 9.30735 m Fwd of AP
LCF : 8.77784 m Fwd of AP
MCT : 1.44 tm/cm
TPC : 1.09 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.0	0.00	0.00	0.00
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.3	7.87	0.00	0.49
CREW	0.6	6.50	0.00	4.20
Diesel Oil	0.7	6.48	0.00	0.79
FISH	4.0	12.13	0.00	2.13
Fresh Water	1.4	8.20	0.34	1.23
ICE	10.0	12.13	0.00	2.13
FISH NET	6.0	8.80	0.00	2.55
PROVISION	0.2	3.00	-0.50	3.30
STORE	0.2	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	25.1	10.83	0.04	2.18
Lightweight	57.6	8.68	0.00	2.14
Deadweight	25.1	10.83	0.04	2.18
Total weight	82.7	9.33	0.01	2.15

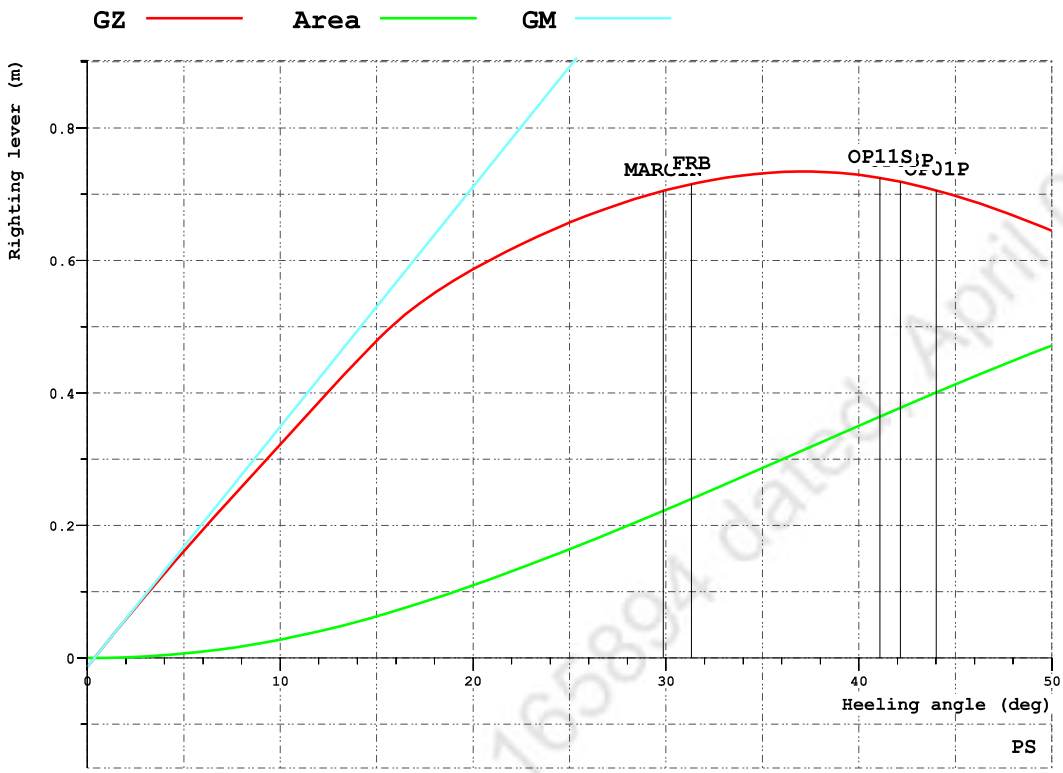
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	10.0	0.4	0.4	0.00
R.FOTK.1P	DO	10.0	0.4	0.4	0.00
TOTAL			0.7	0.8	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	10.0	1.1	1.1	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			1.4	1.4	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.224	mrad	OK
V.AREA40	0.351	mrad	OK
V.AREA3040	0.127	mrad	OK
V.GZ0.2	0.734	m	OK
V.MAXGZ25	37.153	deg	OK
V.GM0.35	2.076	m	OK
V.IMOWEATHER	1.876		OK
2008IS-A2.3.1.2	2.583	deg	OK

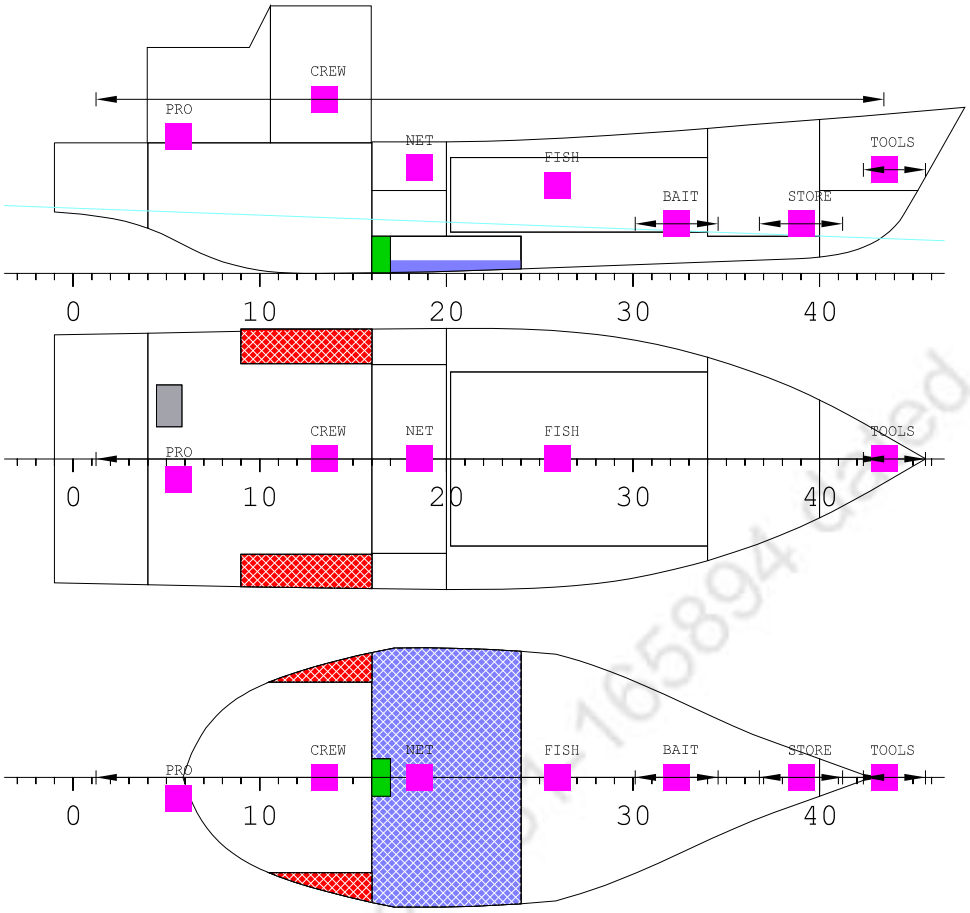
GZ CURVE DATA

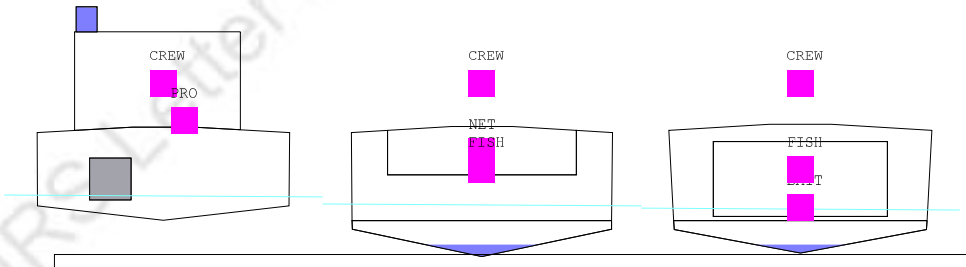
HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.369	-0.403	-0.013	0.000
0.4	1.369	-0.403	0.000	0.000
5.0	1.362	-0.388	0.161	0.007
10.0	1.338	-0.334	0.322	0.028
15.0	1.293	-0.256	0.479	0.063
20.0	1.217	-0.168	0.587	0.110
30.0	0.983	0.027	0.706	0.224
40.0	0.674	0.214	0.729	0.351
50.0	0.337	0.343	0.645	0.472

RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	44.0	1.998
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	2.035
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	42.2	2.030
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	2.068
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.740
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.553
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.592
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.592
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.592
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	2.868
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	41.1	2.019
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.593

ARR. 10% CONS & 0% CATCH W/O ICE





Machinery Sp.	Cold Room Store	Diesel Oil
Shop Store	Void	Fresh Water
FISH NET	Ballast Water	Wheelhouse
Accommodation	BIO TOILET	

ARR. 10% CONS & 0% CATCH W/O ICE

Floating Position - Intact condition

Draught at AP (moulded)	1.578 m
Draught at FP (moulded)	0.821 m
Mean Draught (moulded)	1.214 m
Trim (+ by Bow)	-0.757 m
Heel (+ PS)	0.4 deg
KM above moulded BL	5.246 m
KG above moulded BL	2.16 m
GM0 (solid)	3.089 m
Free Surface Correction	0.472 m
GM (liquid)	2.617 m
Density of Water	1.025 t/m3

LCB : 8.71326 m Fwd of AP
LCF : 8.57202 m Fwd of AP
MCT : 1.34 tm/cm
TPC : 1.06 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.0	0.00	0.00	0.00
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.3	7.87	0.00	0.49
CREW	0.6	6.50	0.00	4.20
Diesel Oil	0.7	6.48	0.00	0.79
FISH	0.0	0.00	0.00	0.00
Fresh Water	1.4	8.20	0.34	1.23
FISH NET	6.0	8.80	0.00	2.55
PROVISION	0.2	3.00	-0.50	3.30
STORE	0.2	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	11.1	9.18	0.10	2.25
Lightweight	57.6	8.68	0.00	2.14
Deadweight	11.1	9.18	0.10	2.25
Total weight	68.7	8.76	0.02	2.16

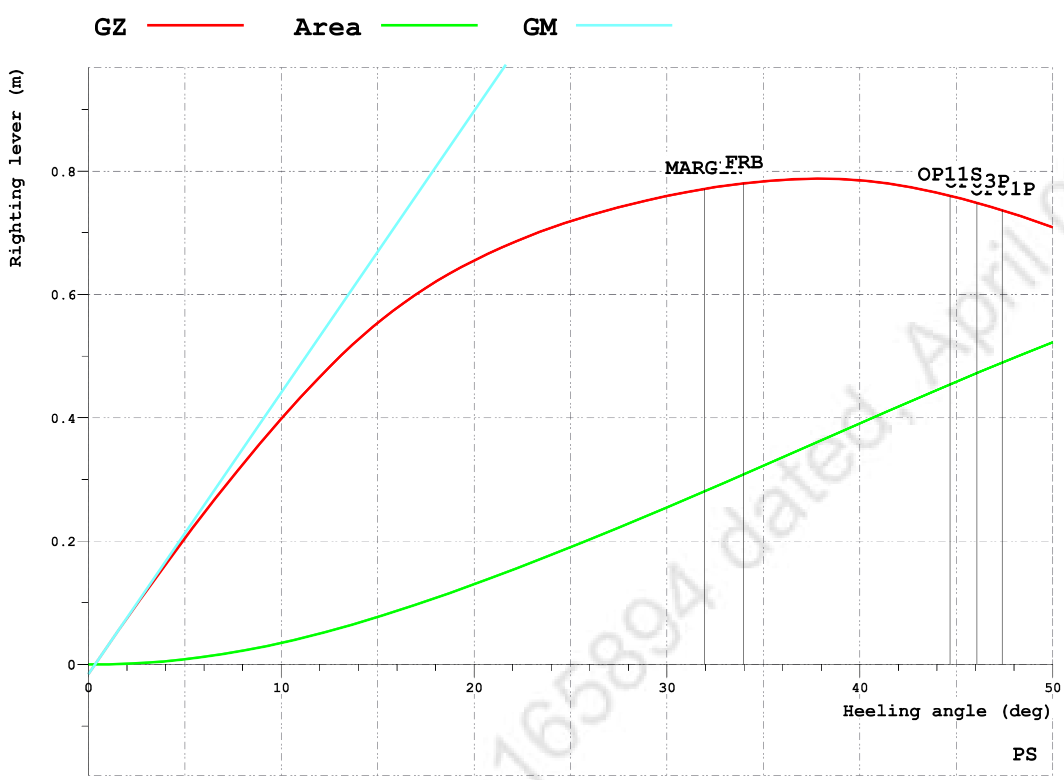
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	10.0	0.4	0.4	0.00
R.FOTK.1P	DO	10.0	0.4	0.4	0.00
TOTAL			0.7	0.8	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	10.0	1.1	1.1	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			1.4	1.4	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.255	mrad	OK
V.AREA40	0.391	mrad	OK
V.AREA3040	0.136	mrad	OK
V.GZ0.2	0.788	m	OK
V.MAXGZ25	37.837	deg	OK
V.GM0.35	2.617	m	OK
V.IMOWEATHER	1.749		OK
2008IS-A2.3.1.2	2.578	deg	OK

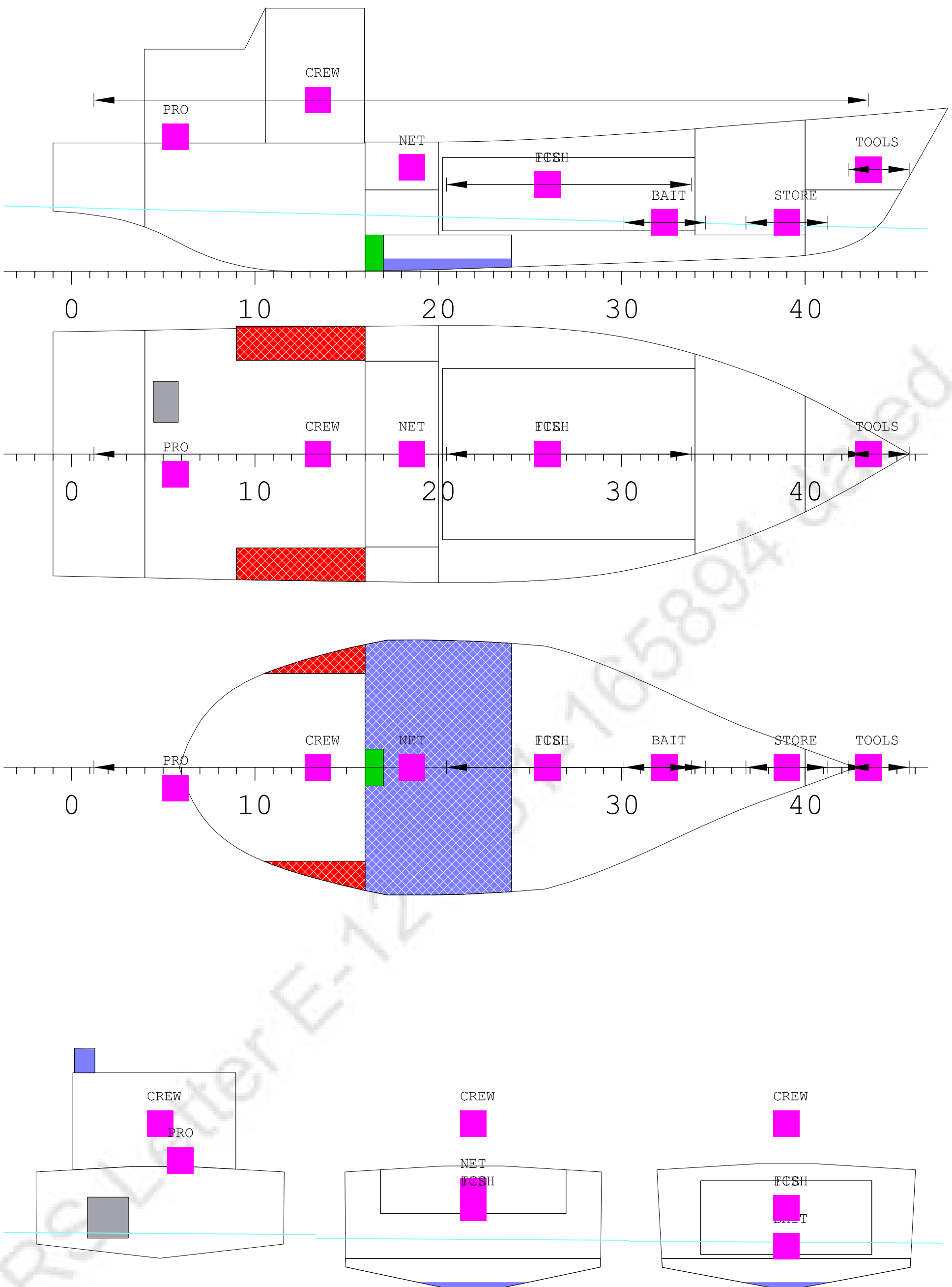
GZ CURVE DATA

HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.214	-0.757	-0.016	0.000
0.4	1.214	-0.757	0.000	0.000
5.0	1.207	-0.746	0.204	0.008
10.0	1.181	-0.701	0.398	0.035
15.0	1.126	-0.638	0.554	0.077
20.0	1.042	-0.562	0.655	0.130
30.0	0.799	-0.379	0.760	0.255
40.0	0.479	-0.191	0.785	0.391
50.0	0.126	-0.063	0.709	0.522

RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	47.4	2.096
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	2.131
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	46.1	2.156
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	2.193
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.811
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.575
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.615
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.615
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.615
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	3.211
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	44.7	2.137
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.615

ARR. 10% CONS & 0% CATCH WITH ICE



Machinery Sp.	Cold Room Store	Diesel Oil
Shop Store	Void	Fresh Water
FISH NET	Ballast Water	Wheelhouse
Accommodation	BIO TOILET	

ARR. 10% CONS & 0% CATCH WITH ICE

Floating Position - Intact condition

Draught at AP (moulded)	1.566 m
Draught at FP (moulded)	1.066 m
Mean Draught (moulded)	1.325 m
Trim (+ by Bow)	-0.500 m
Heel (+ PS)	0.4 deg
KM above moulded BL	4.778 m
KG above moulded BL	2.15 m
GM0 (solid)	2.624 m
Free Surface Correction	0.412 m
GM (liquid)	2.212 m
Density of Water	1.025 t/m3

LCB : 9.15876 m Fwd of AP
LCF : 8.7385 m Fwd of AP
MCT : 1.42 tm/cm
TPC : 1.08 t/cm

LOAD SUMMARY TABLE

NAME	MASS t	LCG m	TCG m	VCG m
BAIT	0.0	0.00	0.00	0.00
BIO TOILET	0.6	2.77	1.28	1.90
Ballast Water	0.3	7.87	0.00	0.49
CREW	0.6	6.50	0.00	4.20
Diesel Oil	0.7	6.48	0.00	0.79
FISH	0.0	0.00	0.00	0.00
Fresh Water	1.4	8.20	0.34	1.23
ICE	10.0	12.13	0.00	2.13
FISH NET	6.0	8.80	0.00	2.55
PROVISION	0.2	3.00	-0.50	3.30
STORE	0.2	18.00	0.00	1.20
TOOLS	1.0	20.00	0.00	2.50
Deadweight	21.1	10.58	0.05	2.19
Lightweight	57.6	8.68	0.00	2.14
Deadweight	21.1	10.58	0.05	2.19
Total weight	78.7	9.19	0.01	2.15

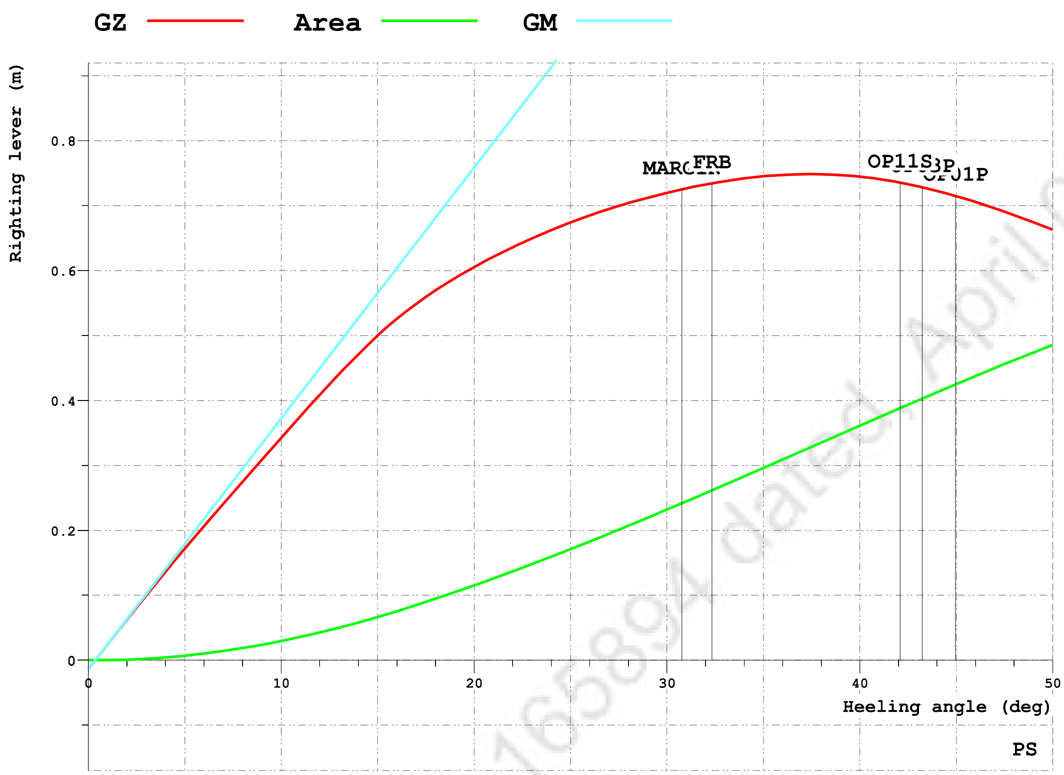
Diesel Oil (Density 0.860 t/m3)

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FOTK.1S	DO	10.0	0.4	0.4	0.00
R.FOTK.1P	DO	10.0	0.4	0.4	0.00
TOTAL			0.7	0.8	0.00

Fresh Water 1.00 t/m3

NAME	PURP	FILL %	MASS t	VOL m3	FRSM tm
R.FWTK	FW	10.0	1.1	1.1	32.43
R.FWTK_OVER	FW	95.0	0.3	0.3	0.00
TOTAL			1.4	1.4	32.43

INTACT STABILITY CHECK PLOT



INTACT STABILITY CRITERIA

RCR	TEXT	REQ
V.AREA30	Area under GZ curve up to 30 deg	0.055
V.AREA40	Area under GZ curve up to 40 deg.	0.090
V.AREA3040	Area under GZ curve between 30 and 40 deg	0.030
V.GZ0.2	Min. GZ > 0.2	0.200
V.MAXGZ25	Max. GZ at an angle > 25 deg.	25.000
V.GM0.35	GM > 0.35 m	0.350
V.IMOWEATHER	IMO weather criterion	1.000
2008IS-A2.3.1.2	Heeling angle due to steady wind <16 or <=80% of deck imm.	16.000

RCR	ATTV	UNIT	STAT
V.AREA30	0.232	mrad	OK
V.AREA40	0.361	mrad	OK
V.AREA3040	0.129	mrad	OK
V.GZ0.2	0.749	m	OK
V.MAXGZ25	37.486	deg	OK
V.GM0.35	2.212	m	OK
V.IMOWEATHER	1.867		OK
2008IS-A2.3.1.2	2.577	deg	OK

GZ CURVE DATA

HEEL deg	T m	TR m	GZ m	AREA mrad
0.0	1.325	-0.500	-0.014	0.000
0.4	1.325	-0.500	0.000	0.000
5.0	1.318	-0.486	0.172	0.007
10.0	1.294	-0.432	0.343	0.030
15.0	1.247	-0.357	0.500	0.066
20.0	1.169	-0.272	0.605	0.115
30.0	0.933	-0.080	0.720	0.232
40.0	0.620	0.111	0.745	0.361
50.0	0.279	0.240	0.663	0.486

RELEVANT OPENINGS

NAME	TEXT	WT	X m	Y m	Z m	IMMA deg	IMMR m
OP01P	FO TANK PORT	UNPROTECTED	6.881	2.856	3.450	45.0	2.026
OP02S	FO TANK STBD	UNPROTECTED	6.881	-2.856	3.450	-	2.062
OP03P	FW TANK PORT	UNPROTECTED	8.518	2.942	3.450	43.2	2.066
OP04S	FW TANK STBD	UNPROTECTED	8.518	-2.942	3.450	-	2.103
OP05S	ENG ROOM IN	UNPROTECTED	5.500	-0.330	7.200	-	5.761
OP06S	ENG ROOM OUT	UNPROTECTED	2.690	-0.725	6.066	-	4.560
OP07S	MAIN ENG IN	UNPROTECTED	2.690	-1.450	4.100	-	2.599
OP08S	MAIN ENG OUT	UNPROTECTED	2.690	-1.470	4.100	-	2.600
OP09S	DG EXHAUST	UNPROTECTED	2.690	-1.490	4.100	-	2.600
OP10S	VOID TANK 1	UNPROTECTED	21.000	-0.088	4.020	-	2.963
OP11S	DRAIN TANK	UNPROTECTED	8.000	3.022	3.450	42.1	2.052
OP12S	E/R VENTILAT	WEATHERTIGHT	2.600	-1.900	4.100	-	2.600

5. HYDROSTATICS DATA

MAIN CHARACTERISTICS OF THE VESSEL:

Length between perpendiculars	20.25	m
Breadth (moulded)	6.40	m
Design draught (moulded)	1.80	m
X-coordinate of aft perpendicular	0.37	m
X-coordinate of reference point (XREF)	10.12	m
X-coordinate of midship section (XMID)	10.12	m
Thickness of keelplate	0.006	m
Mean thickness of shell plating	0.006	m
Seawater density	1.025	ton/m3

Calculations are based on STABHULL date 2021-03-22 time 17:54

Shell thickness used in the calculation	6.0	mm
X-coord. of aft end of DWL	0.00	m
X-coord. of fore end of DWL	20.70	m
Calc. sections	31	
Plate thickness	6.0	mm

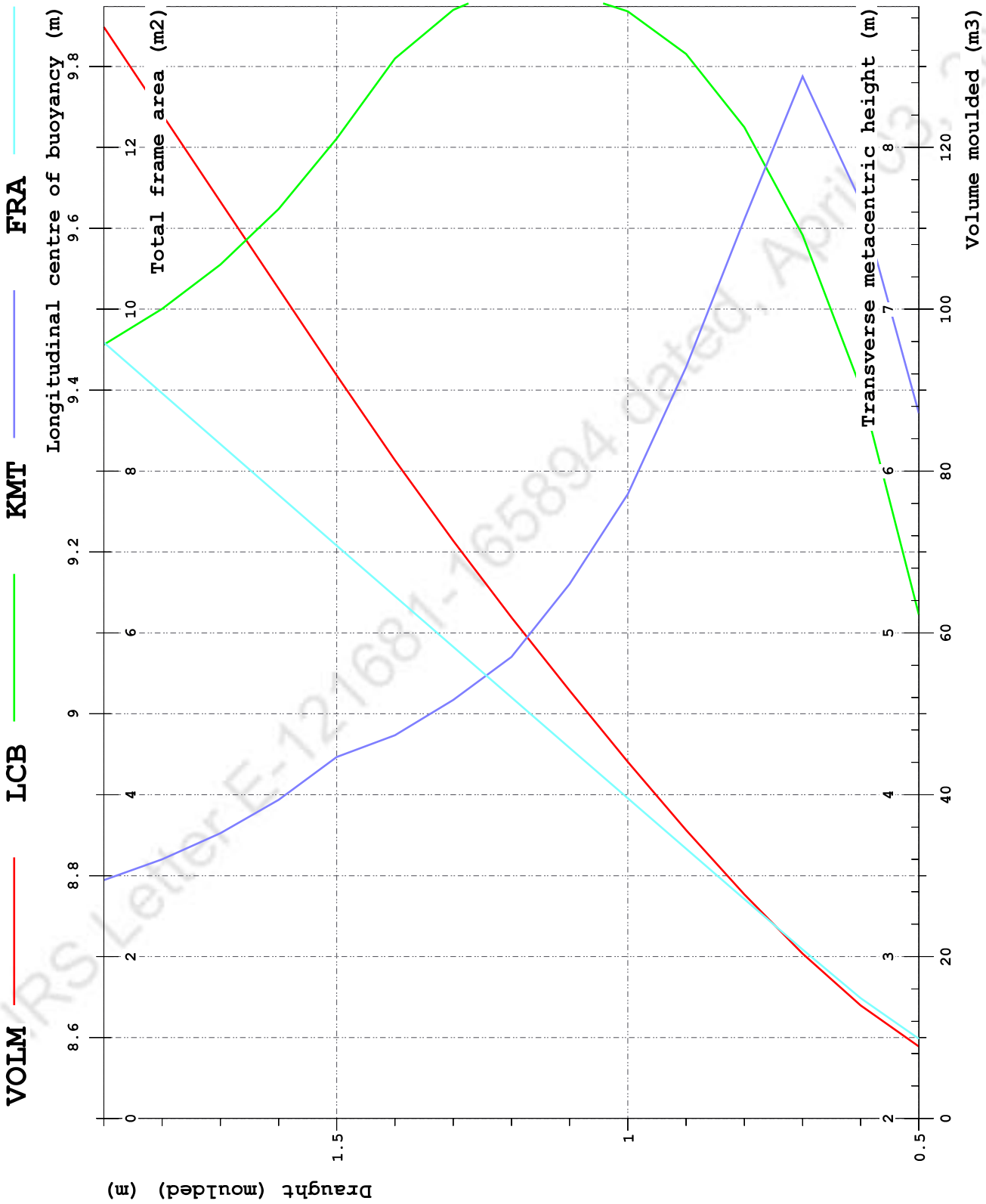
EXPLANATION OF SYMBOLS:

T	Draught (moulded)	m
TK	Draught below keel	m
DISP	Total displacement	t
LCB	longitudinal centre of buoyancy	m
VCB	Vertical center of buoyancy	m
LCF	Longitudinal centre of flotation	m
KMT	Transverse metacentric height	m
MCT	Moment to change trim	tm/cm
TPC	change of displacement/change of draught	t/cm

Trim: -0.1 m

T m	TK m	DISP t	LCB m	VCB m	LCF m	KMT m	MCT tm/cm	TPC t/cm
0.500	0.506	9.4	9.122	0.360	9.78	6.357	0.3	0.5
0.600	0.606	14.7	9.403	0.430	9.96	7.666	0.4	0.6
0.700	0.706	21.3	9.592	0.499	10.08	8.439	0.5	0.7
0.800	0.806	28.9	9.725	0.565	10.14	7.555	0.6	0.8
0.900	0.906	37.1	9.816	0.628	10.14	6.643	0.7	0.8
1.000	1.006	45.8	9.868	0.689	10.09	5.858	0.8	0.9
1.100	1.106	54.8	9.892	0.749	10.00	5.301	0.9	0.9
1.200	1.206	64.1	9.901	0.807	9.80	4.852	1.0	1.0
1.300	1.306	73.9	9.870	0.866	9.56	4.585	1.1	1.0
1.400	1.406	84.1	9.810	0.926	9.16	4.368	1.3	1.1
1.500	1.506	94.9	9.711	0.986	8.86	4.233	1.5	1.1
1.600	1.606	105.9	9.624	1.045	8.88	3.969	1.5	1.1
1.700	1.706	117.0	9.555	1.103	8.91	3.763	1.5	1.1
1.800	1.806	128.0	9.500	1.159	8.93	3.601	1.5	1.1
1.900	1.906	139.2	9.456	1.215	8.96	3.472	1.5	1.1

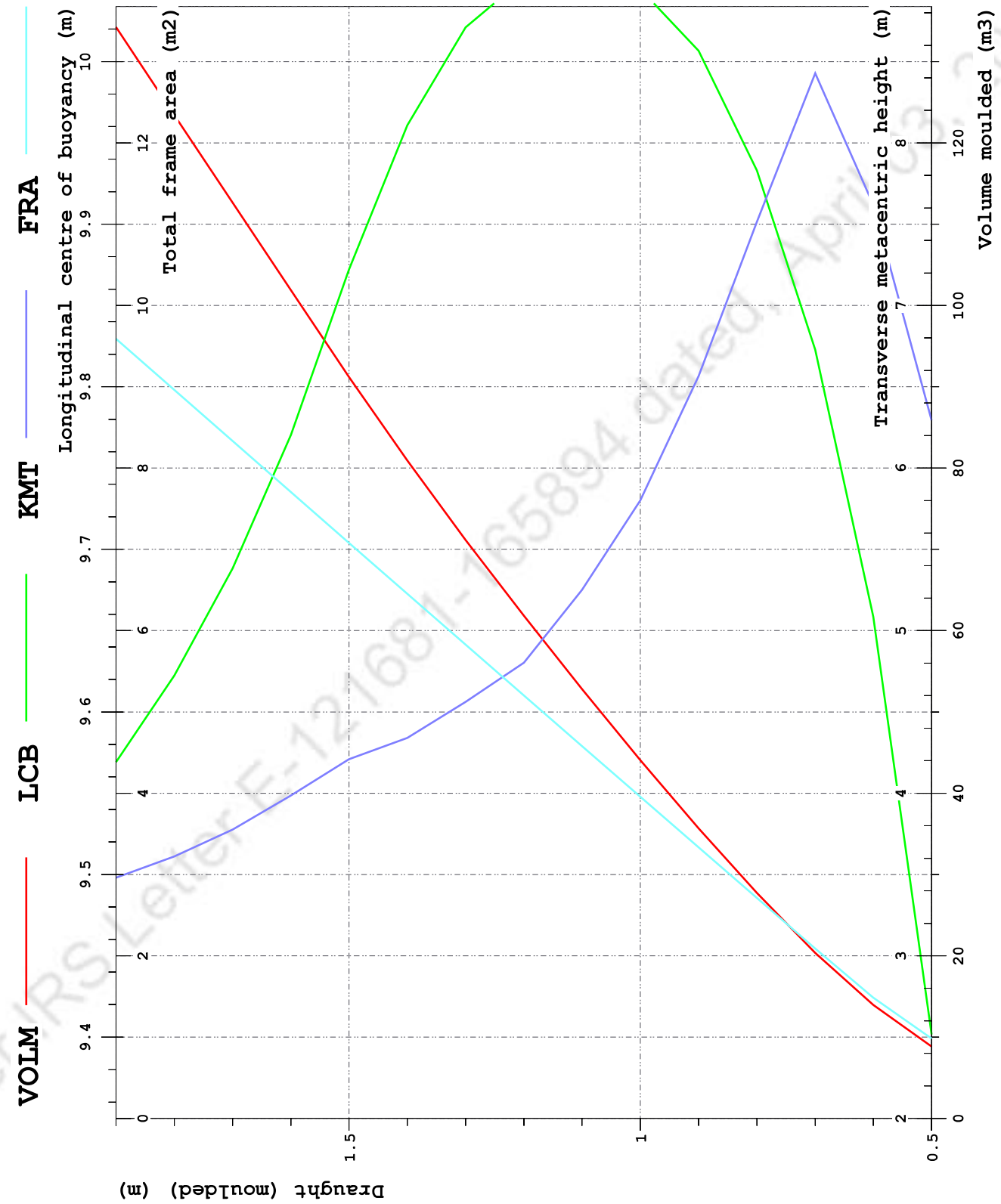
Trim: -0.1 m



Trim: 0 m

T m	TK m	DISP t	LCB m	VCB m	LCF m	KMT m	MCT tm/cm	TPC t/cm
0.500	0.506	9.4	9.402	0.359	10.01	6.294	0.3	0.5
0.600	0.606	14.7	9.659	0.429	10.15	7.620	0.4	0.6
0.700	0.706	21.3	9.823	0.498	10.24	8.428	0.5	0.7
0.800	0.806	28.9	9.933	0.565	10.27	7.514	0.6	0.8
0.900	0.906	37.1	10.007	0.628	10.25	6.566	0.7	0.8
1.000	1.006	45.7	10.045	0.689	10.19	5.800	0.8	0.9
1.100	1.106	54.8	10.053	0.748	10.09	5.250	0.9	0.9
1.200	1.206	64.0	10.051	0.806	9.92	4.803	1.0	0.9
1.300	1.306	73.6	10.021	0.865	9.68	4.562	1.1	1.0
1.400	1.406	83.7	9.961	0.923	9.41	4.340	1.2	1.0
1.500	1.506	94.3	9.872	0.982	8.95	4.209	1.4	1.1
1.600	1.606	105.3	9.770	1.042	8.89	3.986	1.5	1.1
1.700	1.706	116.3	9.688	1.099	8.92	3.776	1.5	1.1
1.800	1.806	127.4	9.622	1.156	8.94	3.612	1.5	1.1
1.900	1.906	138.5	9.569	1.212	8.97	3.481	1.5	1.1

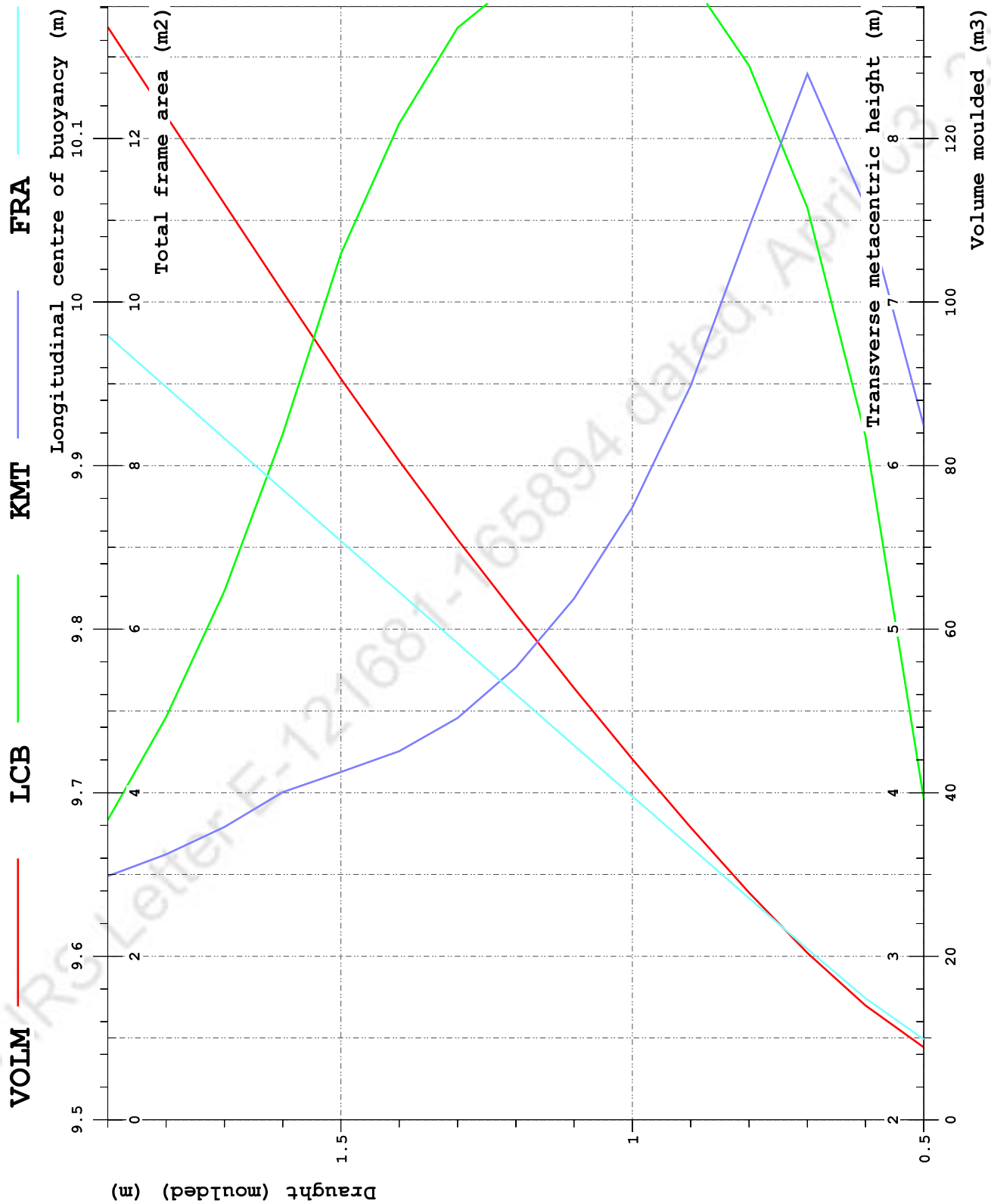
Trim: 0 m



Trim: 0.1 m

T m	TK m	DISP t	LCB m	VCB m	LCF m	KMT m	MCT tm/cm	TPC t/cm
0.500	0.506	9.4	9.696	0.360	10.23	6.243	0.3	0.5
0.600	0.606	14.7	9.918	0.430	10.34	7.584	0.4	0.6
0.700	0.706	21.4	10.058	0.500	10.39	8.396	0.5	0.7
0.800	0.806	29.0	10.145	0.566	10.40	7.456	0.6	0.8
0.900	0.906	37.2	10.197	0.629	10.36	6.489	0.7	0.8
1.000	1.006	45.8	10.219	0.690	10.29	5.745	0.8	0.9
1.100	1.106	54.7	10.215	0.749	10.18	5.187	0.9	0.9
1.200	1.206	64.0	10.197	0.806	10.04	4.766	0.9	0.9
1.300	1.306	73.4	10.168	0.864	9.82	4.457	1.0	1.0
1.400	1.406	83.3	10.109	0.921	9.57	4.255	1.2	1.0
1.500	1.506	93.7	10.030	0.979	9.14	4.126	1.4	1.1
1.600	1.606	104.6	9.919	1.038	8.90	4.004	1.5	1.1
1.700	1.706	115.7	9.823	1.096	8.93	3.791	1.5	1.1
1.800	1.806	126.8	9.746	1.153	8.95	3.623	1.5	1.1
1.900	1.906	137.9	9.683	1.209	8.98	3.490	1.5	1.1

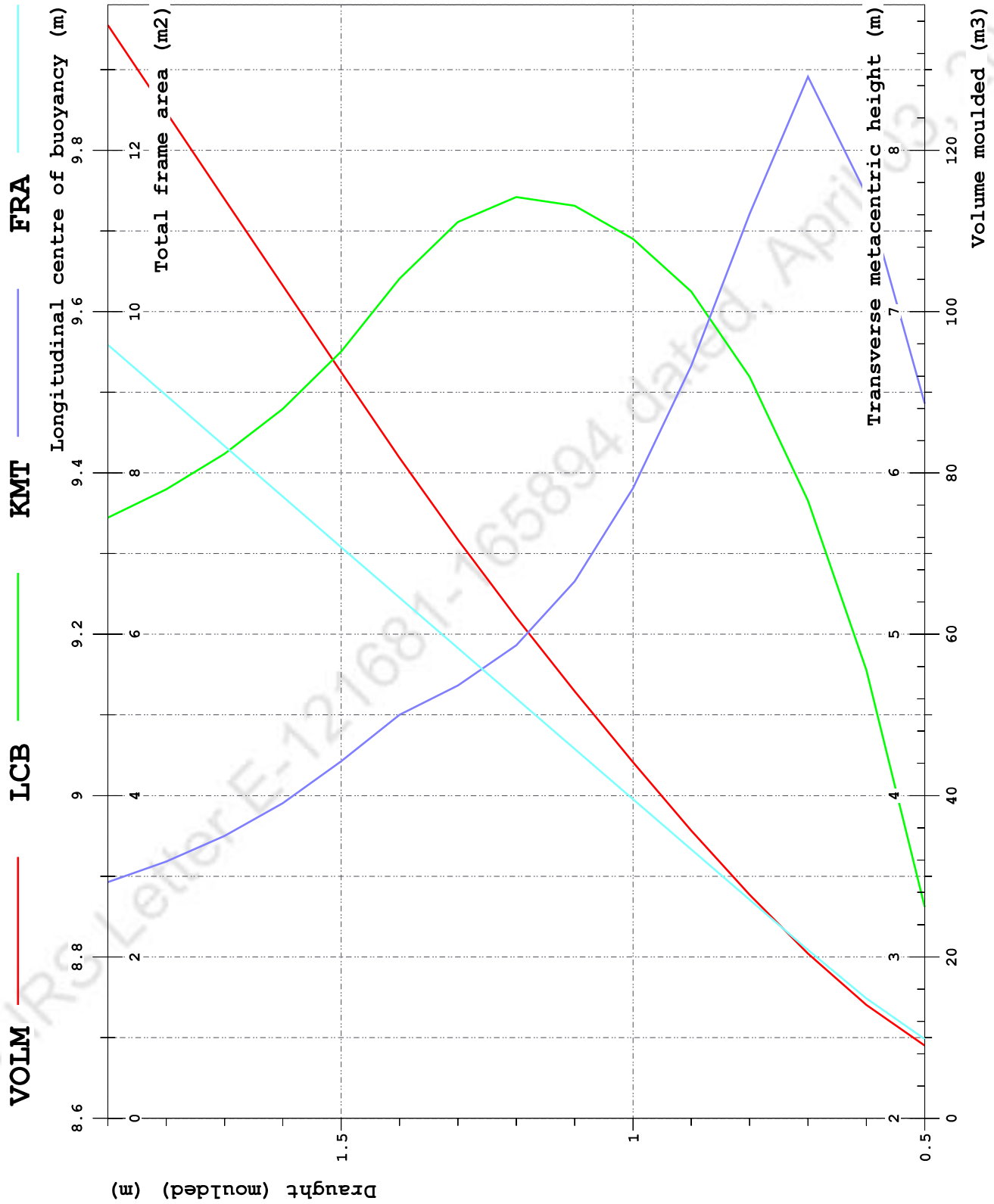
Trim: 0.1 m



Trim: -0.2 m

T m	TK m	DISP t	LCB m	VCB m	LCF m	KMT m	MCT tm/cm	TPC t/cm
0.500	0.506	9.5	8.862	0.364	9.55	6.429	0.2	0.5
0.600	0.606	14.8	9.156	0.433	9.77	7.725	0.4	0.6
0.700	0.706	21.4	9.365	0.501	9.92	8.456	0.5	0.7
0.800	0.806	28.9	9.519	0.567	10.00	7.604	0.6	0.8
0.900	0.906	37.1	9.625	0.630	10.02	6.663	0.7	0.8
1.000	1.006	45.8	9.690	0.691	9.99	5.906	0.8	0.9
1.100	1.106	54.9	9.731	0.751	9.88	5.327	0.9	0.9
1.200	1.206	64.3	9.742	0.810	9.67	4.931	1.0	1.0
1.300	1.306	74.2	9.711	0.870	9.37	4.682	1.2	1.0
1.400	1.406	84.7	9.641	0.930	8.90	4.500	1.4	1.1
1.500	1.506	95.6	9.550	0.991	8.85	4.212	1.5	1.1
1.600	1.606	106.6	9.479	1.050	8.87	3.953	1.5	1.1
1.700	1.706	117.6	9.424	1.107	8.90	3.750	1.5	1.1
1.800	1.806	128.7	9.380	1.164	8.92	3.590	1.5	1.1
1.900	1.906	139.8	9.345	1.219	8.95	3.464	1.5	1.1

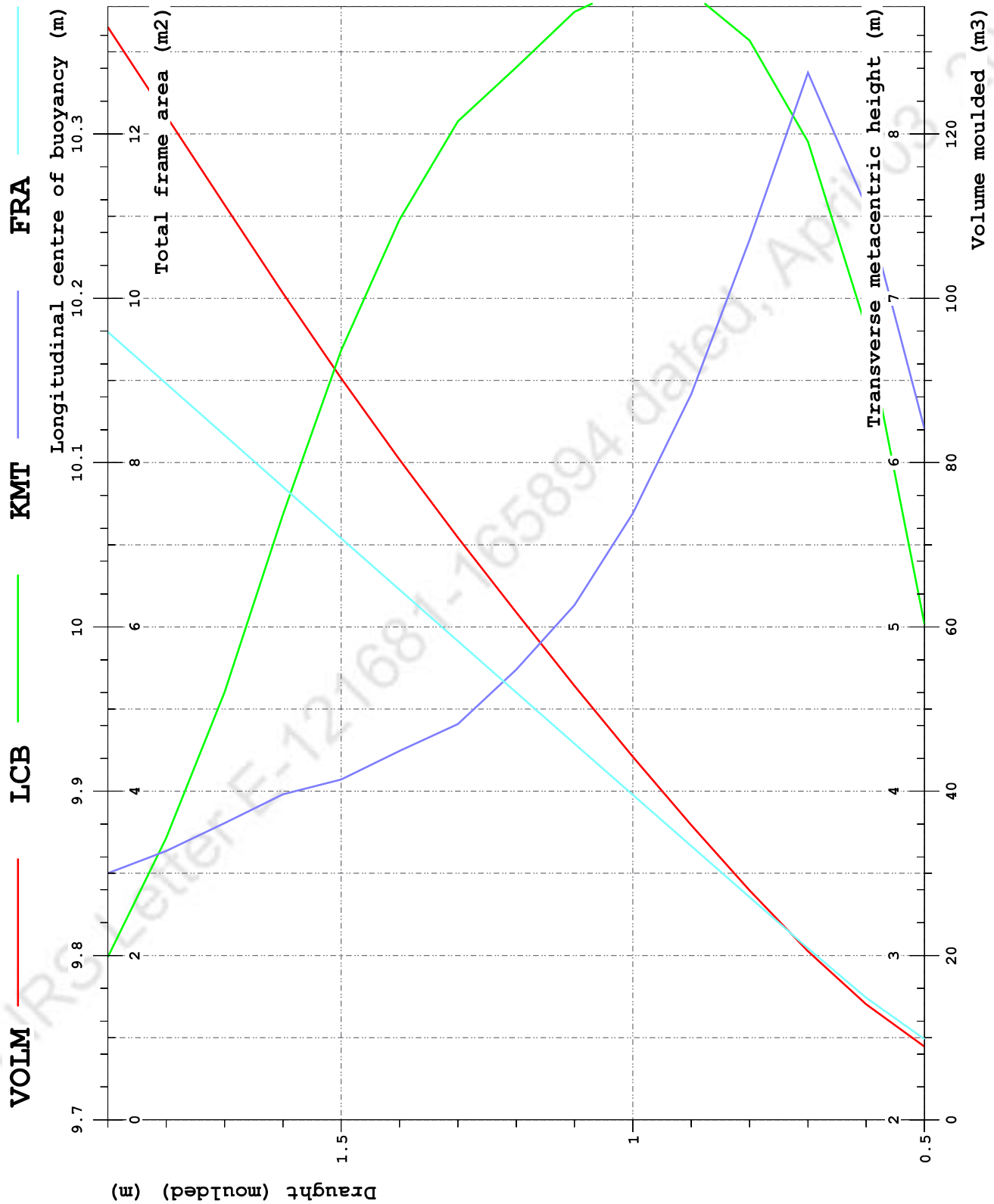
Trim: -0.2 m



Trim: 0.2 m

T m	TK m	DISP t	LCB m	VCB m	LCF m	KMT m	MCT tm/cm	TPC t/cm
0.500	0.506	9.4	10.002	0.363	10.45	6.206	0.3	0.5
0.600	0.606	14.8	10.182	0.433	10.52	7.561	0.4	0.6
0.700	0.706	21.5	10.295	0.503	10.54	8.374	0.5	0.7
0.800	0.806	29.1	10.357	0.569	10.52	7.357	0.6	0.8
0.900	0.906	37.3	10.386	0.631	10.46	6.417	0.7	0.8
1.000	1.006	45.9	10.391	0.691	10.37	5.691	0.8	0.9
1.100	1.106	54.8	10.374	0.750	10.26	5.132	0.8	0.9
1.200	1.206	64.0	10.341	0.807	10.13	4.740	0.9	0.9
1.300	1.306	73.3	10.308	0.864	9.92	4.409	1.0	1.0
1.400	1.406	83.1	10.248	0.921	9.69	4.245	1.1	1.0
1.500	1.506	93.3	10.168	0.978	9.44	4.070	1.2	1.0
1.600	1.606	104.0	10.069	1.036	8.99	3.981	1.5	1.1
1.700	1.706	115.0	9.960	1.094	8.94	3.806	1.5	1.1
1.800	1.806	126.1	9.872	1.151	8.96	3.636	1.5	1.1
1.900	1.906	137.3	9.799	1.206	8.99	3.501	1.5	1.1

Trim: 0.2 m



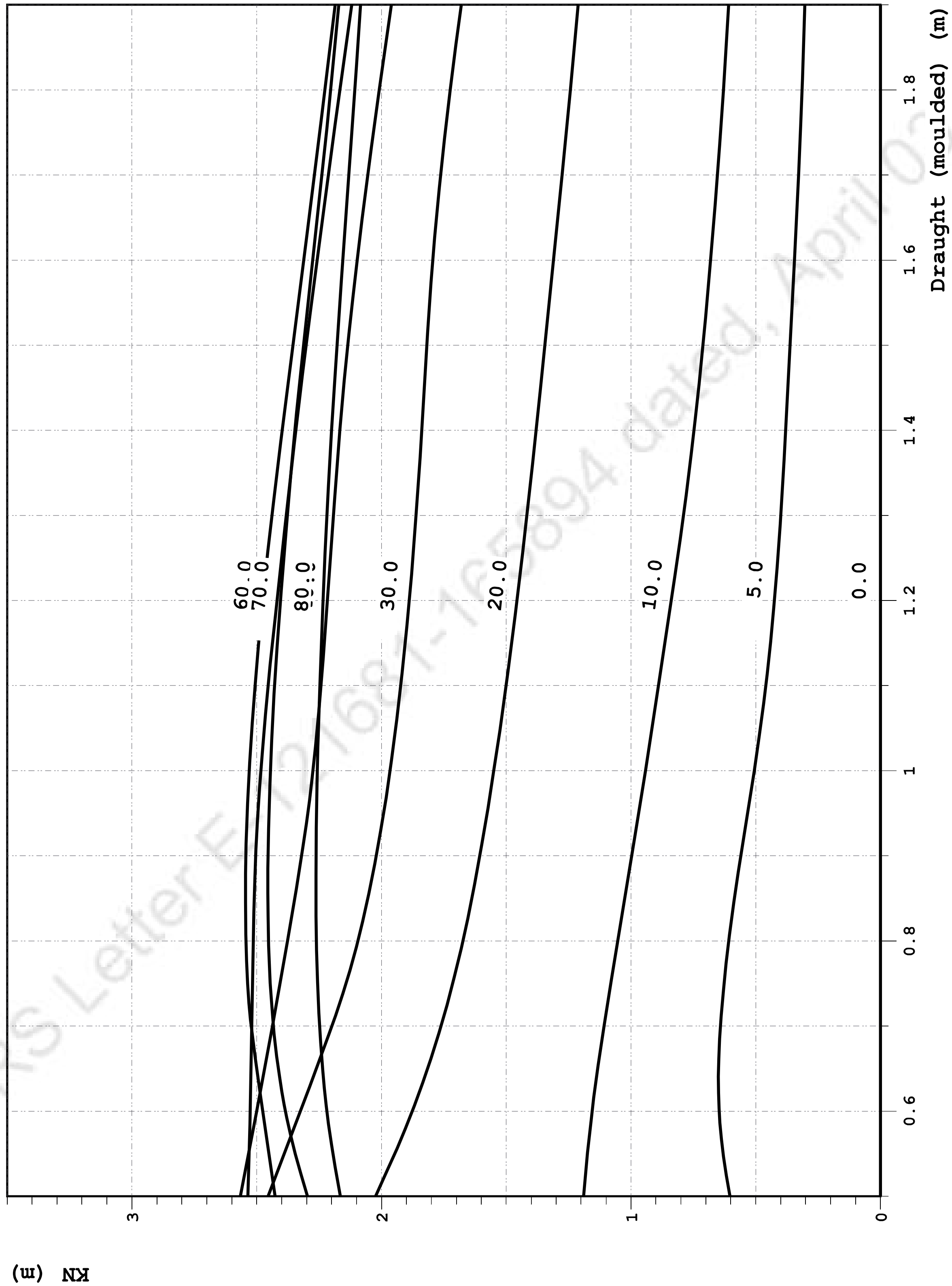
6. CROSS CURVES

Trim: -0.1 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.604	1.190	2.024	2.454	2.565	2.535	2.426	2.296
0.600	0.000	0.647	1.156	1.876	2.325	2.500	2.526	2.475	2.385
0.700	0.000	0.641	1.108	1.761	2.198	2.437	2.520	2.522	2.433
0.800	0.000	0.608	1.053	1.673	2.094	2.377	2.513	2.543	2.453
0.900	0.000	0.560	0.997	1.606	2.020	2.320	2.504	2.543	2.454
1.000	0.000	0.506	0.942	1.550	1.965	2.274	2.483	2.529	2.445
1.100	0.000	0.460	0.890	1.501	1.923	2.242	2.454	2.507	2.428
1.200	0.000	0.425	0.838	1.457	1.888	2.217	2.419	2.476	2.405
1.300	0.000	0.400	0.789	1.417	1.861	2.192	2.381	2.439	2.377
1.400	0.000	0.380	0.747	1.380	1.838	2.166	2.343	2.398	2.347
1.500	0.000	0.363	0.712	1.345	1.819	2.135	2.302	2.355	2.312
1.600	0.000	0.345	0.681	1.311	1.795	2.098	2.258	2.311	2.275
1.700	0.000	0.329	0.654	1.277	1.763	2.055	2.213	2.269	2.238
1.800	0.000	0.315	0.630	1.243	1.725	2.009	2.167	2.227	2.203
1.900	0.000	0.303	0.609	1.212	1.680	1.960	2.119	2.185	2.170

draught	KN (For Diff Heel Angles) 80.0
0.500	2.164
0.600	2.219
0.700	2.248
0.800	2.260
0.900	2.262
1.000	2.257
1.100	2.247
1.200	2.234
1.300	2.219
1.400	2.200
1.500	2.178
1.600	2.155
1.700	2.131
1.800	2.107
1.900	2.084

Trim: -0.1 m

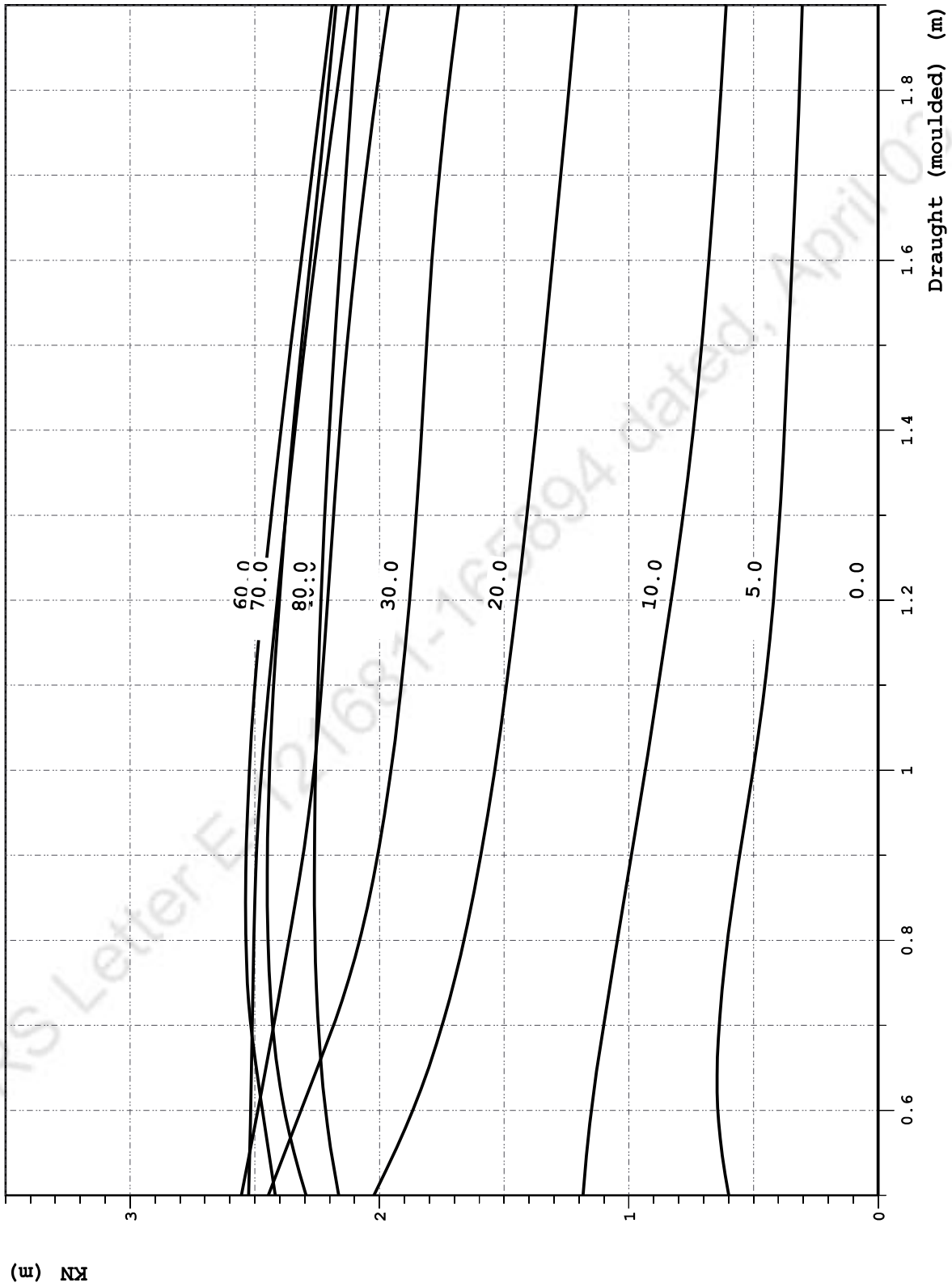

Draught (moulded) (m)
1.8
1.6
1.4
1.2
1
0.8
0.6
60.0
70.0
80.0
30.0
20.0
10.0
5.0
0.0
KN (m)
3
2
1
0

Trim: 0 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.600	1.184	2.023	2.446	2.554	2.524	2.418	2.294
0.600	0.000	0.643	1.150	1.867	2.314	2.488	2.516	2.469	2.381
0.700	0.000	0.638	1.101	1.749	2.184	2.424	2.510	2.516	2.429
0.800	0.000	0.604	1.046	1.661	2.080	2.364	2.504	2.536	2.447
0.900	0.000	0.556	0.989	1.593	2.007	2.307	2.494	2.535	2.450
1.000	0.000	0.502	0.934	1.538	1.954	2.263	2.473	2.522	2.441
1.100	0.000	0.455	0.881	1.491	1.912	2.232	2.444	2.500	2.425
1.200	0.000	0.420	0.830	1.448	1.879	2.208	2.411	2.470	2.402
1.300	0.000	0.395	0.782	1.409	1.853	2.184	2.376	2.434	2.376
1.400	0.000	0.376	0.742	1.373	1.831	2.160	2.339	2.396	2.346
1.500	0.000	0.361	0.708	1.339	1.811	2.131	2.300	2.355	2.313
1.600	0.000	0.345	0.679	1.306	1.790	2.096	2.259	2.313	2.278
1.700	0.000	0.330	0.653	1.273	1.761	2.056	2.215	2.272	2.241
1.800	0.000	0.316	0.630	1.240	1.724	2.011	2.170	2.230	2.207
1.900	0.000	0.304	0.610	1.210	1.682	1.963	2.123	2.190	2.174

draught	KN (For Diff Heel Angles) 80.0
0.500	2.163
0.600	2.217
0.700	2.245
0.800	2.259
0.900	2.261
1.000	2.257
1.100	2.247
1.200	2.235
1.300	2.220
1.400	2.201
1.500	2.181
1.600	2.158
1.700	2.135
1.800	2.110
1.900	2.087

Trim: 0 m

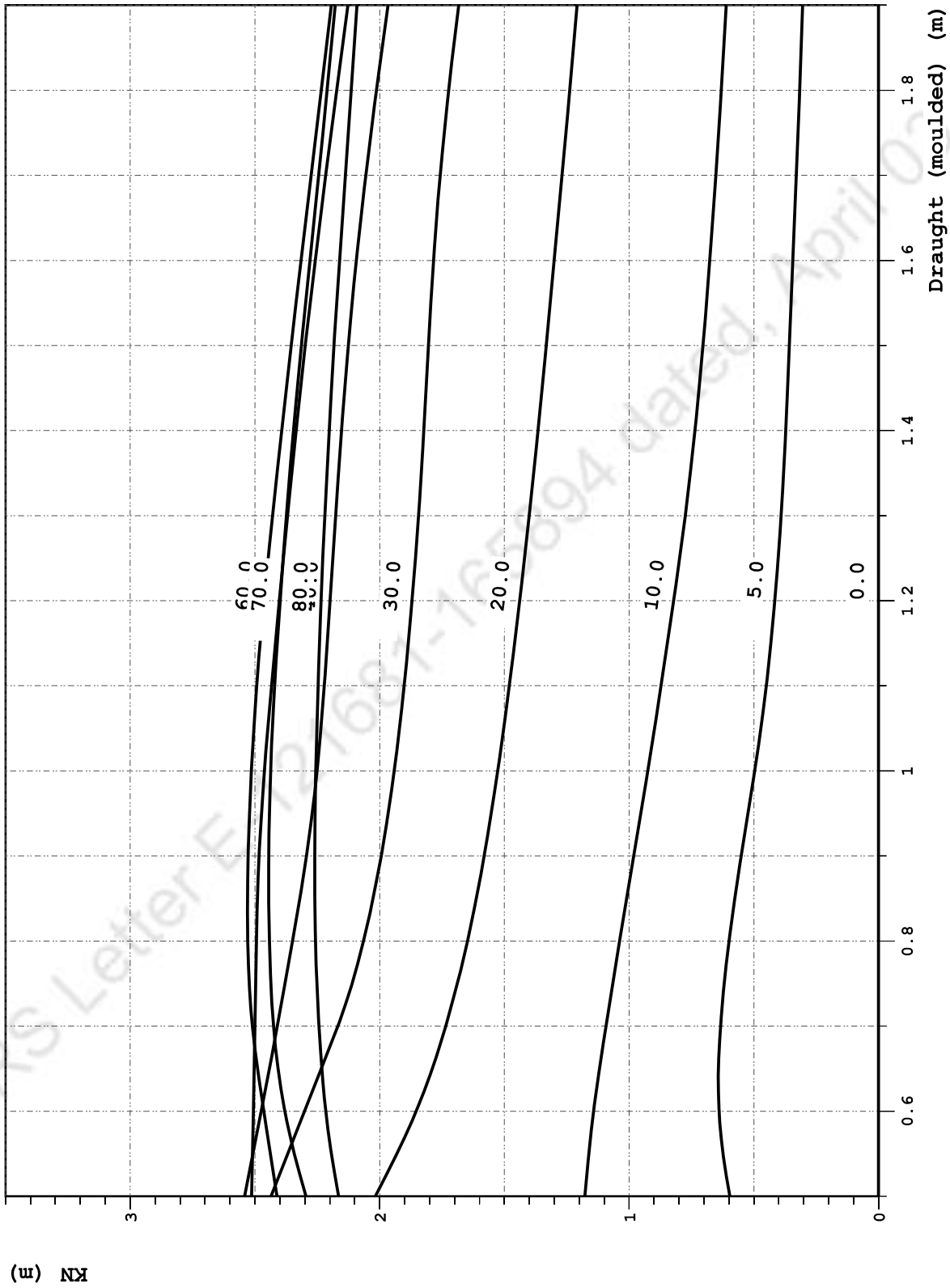


Trim: 0.1 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.596	1.177	2.018	2.435	2.541	2.514	2.412	2.295
0.600	0.000	0.640	1.143	1.854	2.301	2.475	2.506	2.465	2.380
0.700	0.000	0.634	1.092	1.735	2.168	2.410	2.500	2.511	2.426
0.800	0.000	0.599	1.038	1.648	2.065	2.349	2.494	2.529	2.442
0.900	0.000	0.551	0.982	1.581	1.994	2.293	2.483	2.528	2.445
1.000	0.000	0.497	0.925	1.526	1.942	2.251	2.462	2.514	2.437
1.100	0.000	0.451	0.872	1.480	1.902	2.222	2.433	2.493	2.421
1.200	0.000	0.416	0.822	1.439	1.870	2.199	2.402	2.463	2.399
1.300	0.000	0.390	0.775	1.401	1.844	2.176	2.369	2.429	2.374
1.400	0.000	0.372	0.736	1.366	1.823	2.153	2.335	2.393	2.345
1.500	0.000	0.358	0.704	1.332	1.804	2.126	2.298	2.355	2.314
1.600	0.000	0.344	0.677	1.300	1.784	2.094	2.258	2.315	2.279
1.700	0.000	0.330	0.652	1.269	1.757	2.055	2.216	2.274	2.244
1.800	0.000	0.317	0.630	1.237	1.724	2.013	2.172	2.233	2.210
1.900	0.000	0.305	0.611	1.208	1.683	1.966	2.127	2.193	2.178

draught	KN (For Diff Heel Angles) 80.0
0.500	2.164
0.600	2.216
0.700	2.243
0.800	2.257
0.900	2.260
1.000	2.256
1.100	2.247
1.200	2.235
1.300	2.220
1.400	2.203
1.500	2.183
1.600	2.161
1.700	2.138
1.800	2.114
1.900	2.091

Trim: 0.1 m

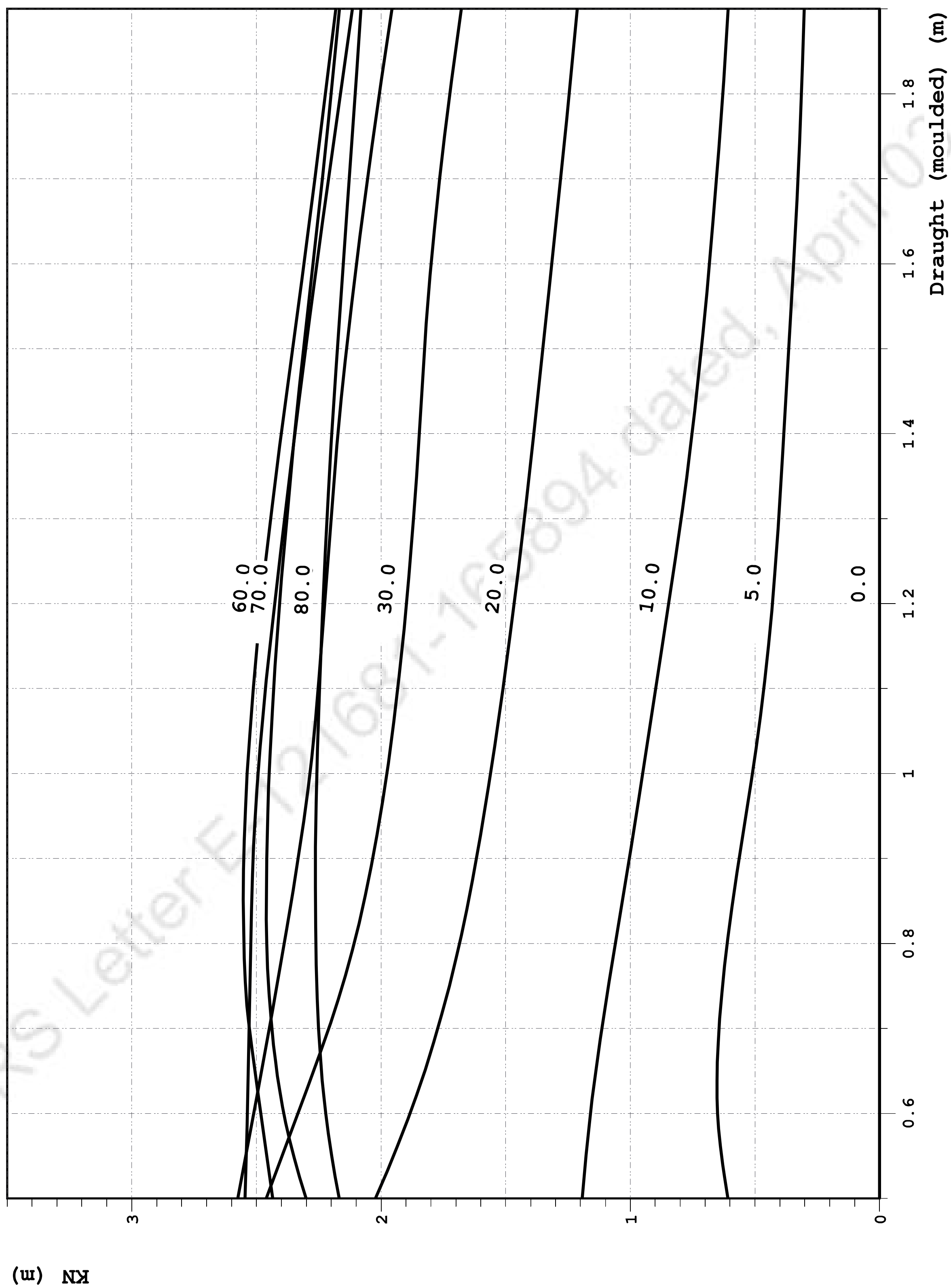


Trim: -0.2 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.608	1.193	2.022	2.460	2.575	2.546	2.435	2.301
0.600	0.000	0.650	1.160	1.884	2.334	2.511	2.536	2.483	2.390
0.700	0.000	0.644	1.114	1.772	2.210	2.448	2.529	2.528	2.438
0.800	0.000	0.612	1.061	1.685	2.108	2.389	2.523	2.550	2.459
0.900	0.000	0.564	1.004	1.617	2.033	2.333	2.514	2.551	2.458
1.000	0.000	0.510	0.951	1.561	1.977	2.285	2.493	2.537	2.449
1.100	0.000	0.465	0.898	1.511	1.933	2.252	2.463	2.512	2.431
1.200	0.000	0.430	0.846	1.466	1.898	2.226	2.427	2.481	2.407
1.300	0.000	0.405	0.796	1.425	1.870	2.200	2.387	2.443	2.378
1.400	0.000	0.384	0.752	1.388	1.847	2.172	2.346	2.400	2.346
1.500	0.000	0.364	0.715	1.351	1.826	2.138	2.303	2.354	2.311
1.600	0.000	0.345	0.683	1.315	1.799	2.098	2.257	2.309	2.273
1.700	0.000	0.328	0.654	1.280	1.765	2.054	2.211	2.265	2.235
1.800	0.000	0.314	0.629	1.245	1.724	2.006	2.163	2.223	2.200
1.900	0.000	0.303	0.607	1.213	1.678	1.956	2.115	2.181	2.166

draught	KN (For Diff Heel Angles) 80.0
0.500	2.168
0.600	2.222
0.700	2.251
0.800	2.262
0.900	2.263
1.000	2.258
1.100	2.247
1.200	2.233
1.300	2.217
1.400	2.197
1.500	2.175
1.600	2.152
1.700	2.128
1.800	2.103
1.900	2.080

Trim: -0.2 m

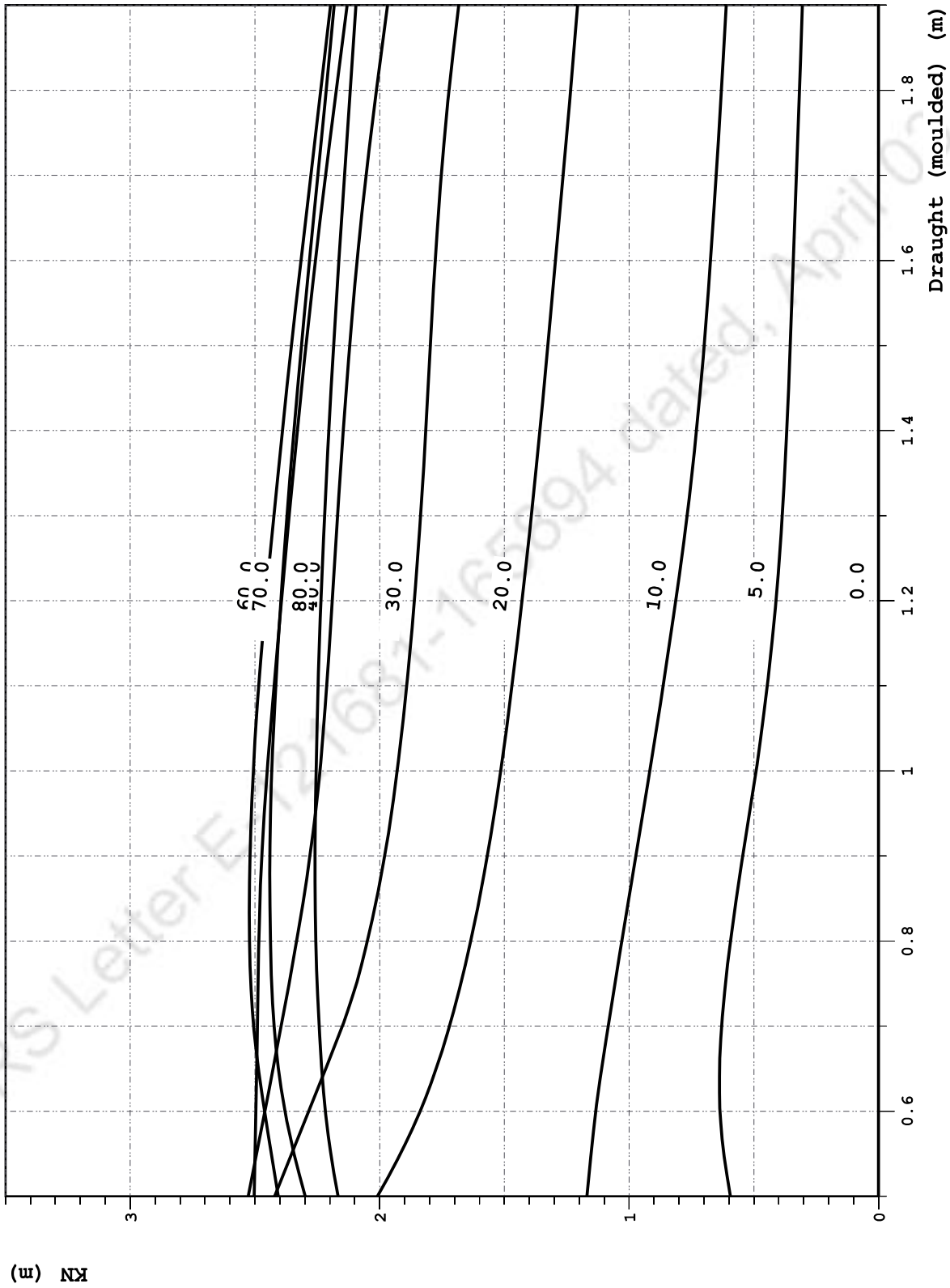


Trim: 0.2 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.594	1.169	2.009	2.421	2.527	2.503	2.407	2.298
0.600	0.000	0.636	1.134	1.837	2.285	2.460	2.496	2.461	2.380
0.700	0.000	0.629	1.084	1.720	2.150	2.395	2.490	2.505	2.423
0.800	0.000	0.594	1.029	1.635	2.049	2.333	2.484	2.522	2.438
0.900	0.000	0.545	0.973	1.568	1.980	2.279	2.473	2.520	2.440
1.000	0.000	0.491	0.917	1.515	1.930	2.240	2.451	2.507	2.433
1.100	0.000	0.446	0.864	1.469	1.891	2.212	2.423	2.485	2.417
1.200	0.000	0.411	0.813	1.429	1.861	2.190	2.394	2.456	2.396
1.300	0.000	0.386	0.767	1.392	1.836	2.168	2.363	2.424	2.372
1.400	0.000	0.368	0.730	1.358	1.815	2.146	2.330	2.390	2.343
1.500	0.000	0.354	0.699	1.326	1.797	2.120	2.295	2.354	2.313
1.600	0.000	0.342	0.673	1.295	1.777	2.090	2.258	2.316	2.281
1.700	0.000	0.330	0.651	1.264	1.753	2.054	2.217	2.276	2.247
1.800	0.000	0.317	0.630	1.234	1.722	2.013	2.174	2.236	2.214
1.900	0.000	0.306	0.611	1.206	1.683	1.969	2.130	2.197	2.182

draught	KN (For Diff Heel Angles) 80.0
0.500	2.167
0.600	2.217
0.700	2.243
0.800	2.256
0.900	2.259
1.000	2.255
1.100	2.247
1.200	2.235
1.300	2.220
1.400	2.204
1.500	2.185
1.600	2.164
1.700	2.141
1.800	2.117
1.900	2.095

Trim: 0.2 m

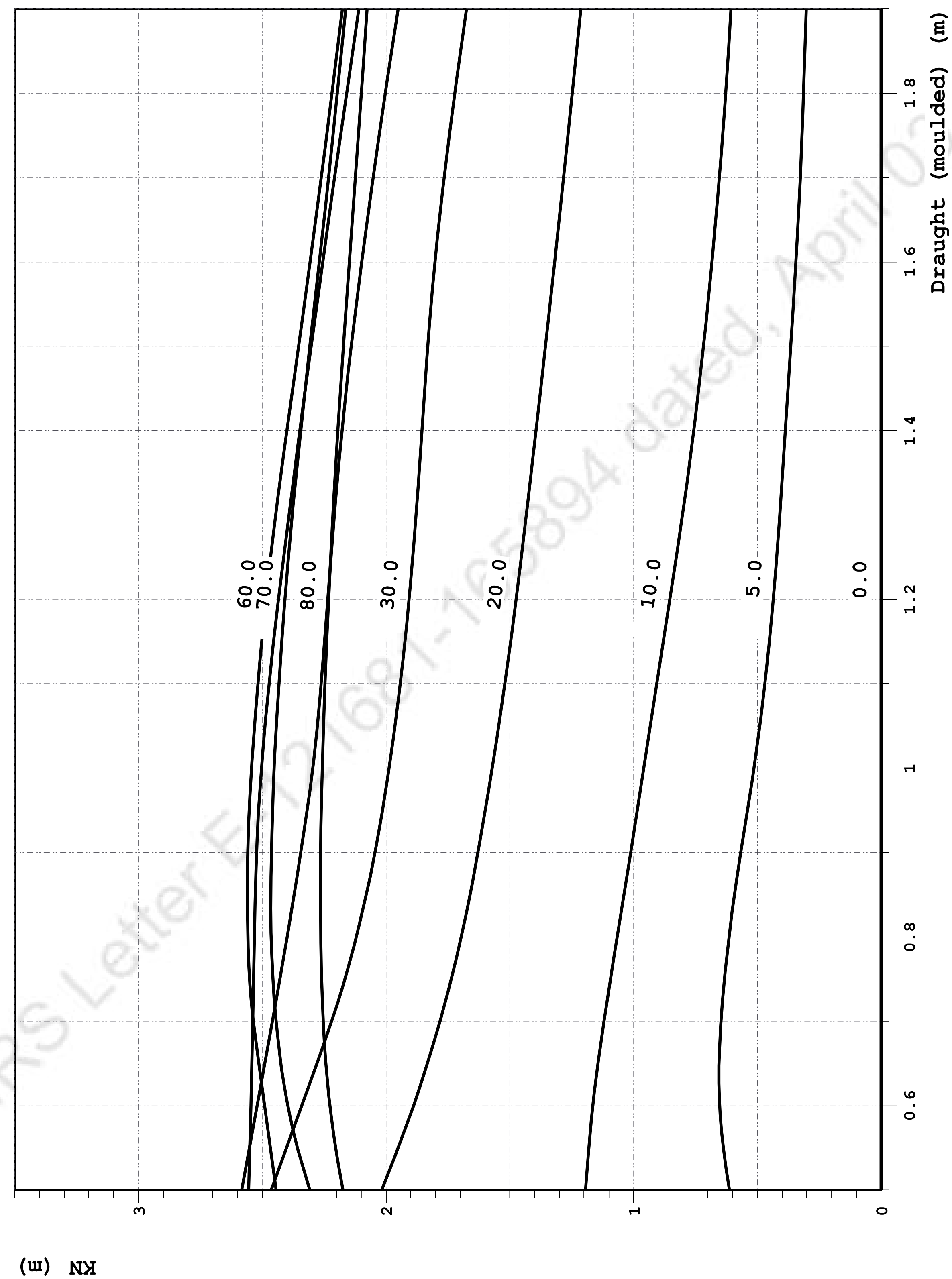


Trim: -0.3 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.612	1.194	2.018	2.464	2.583	2.555	2.444	2.308
0.600	0.000	0.653	1.165	1.889	2.340	2.521	2.546	2.491	2.397
0.700	0.000	0.647	1.119	1.782	2.220	2.459	2.538	2.536	2.444
0.800	0.000	0.614	1.066	1.696	2.120	2.399	2.532	2.558	2.464
0.900	0.000	0.567	1.012	1.629	2.045	2.344	2.523	2.558	2.463
1.000	0.000	0.514	0.959	1.571	1.988	2.296	2.503	2.544	2.452
1.100	0.000	0.470	0.906	1.520	1.943	2.262	2.472	2.518	2.433
1.200	0.000	0.436	0.854	1.475	1.907	2.235	2.434	2.485	2.409
1.300	0.000	0.410	0.802	1.433	1.878	2.208	2.392	2.446	2.379
1.400	0.000	0.387	0.757	1.394	1.855	2.178	2.348	2.401	2.345
1.500	0.000	0.365	0.717	1.356	1.832	2.141	2.302	2.353	2.308
1.600	0.000	0.344	0.683	1.319	1.802	2.098	2.256	2.306	2.270
1.700	0.000	0.327	0.654	1.283	1.765	2.052	2.208	2.262	2.232
1.800	0.000	0.313	0.628	1.247	1.722	2.003	2.159	2.218	2.196
1.900	0.000	0.302	0.606	1.213	1.675	1.951	2.110	2.176	2.162

draught	KN (For Diff Heel Angles) 80.0
0.500	2.174
0.600	2.227
0.700	2.254
0.800	2.263
0.900	2.264
1.000	2.258
1.100	2.247
1.200	2.232
1.300	2.215
1.400	2.194
1.500	2.172
1.600	2.148
1.700	2.124
1.800	2.099
1.900	2.077

Trim: -0.3 m

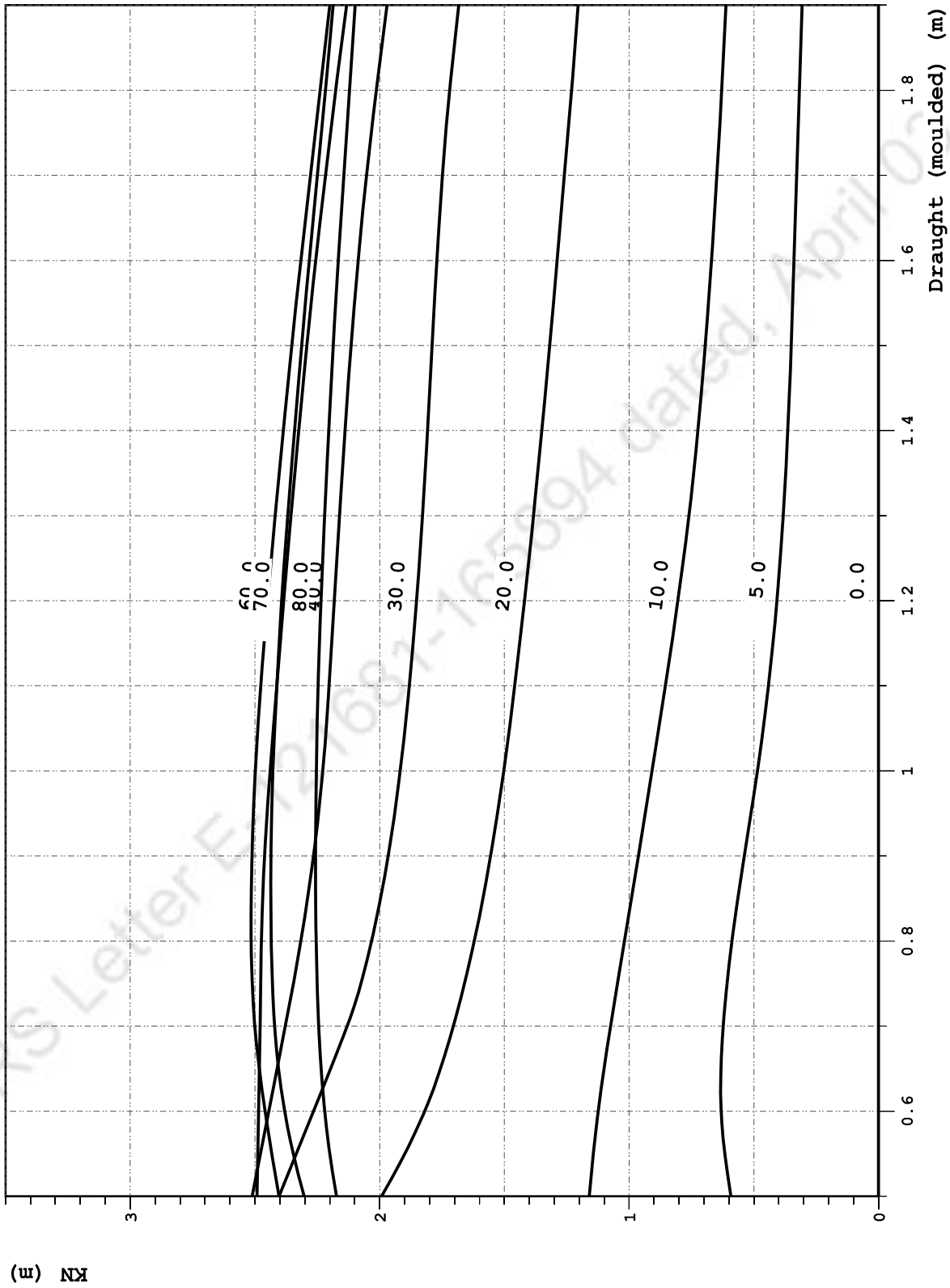


Trim: 0.3 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.592	1.160	1.993	2.403	2.511	2.492	2.403	2.303
0.600	0.000	0.631	1.124	1.819	2.265	2.444	2.486	2.459	2.381
0.700	0.000	0.623	1.074	1.704	2.130	2.378	2.479	2.500	2.421
0.800	0.000	0.588	1.019	1.621	2.033	2.316	2.474	2.515	2.435
0.900	0.000	0.538	0.963	1.555	1.966	2.265	2.461	2.512	2.436
1.000	0.000	0.485	0.908	1.503	1.917	2.228	2.439	2.499	2.428
1.100	0.000	0.441	0.855	1.459	1.881	2.202	2.413	2.477	2.412
1.200	0.000	0.407	0.805	1.420	1.852	2.182	2.385	2.449	2.392
1.300	0.000	0.382	0.760	1.384	1.828	2.161	2.356	2.419	2.369
1.400	0.000	0.364	0.724	1.350	1.808	2.139	2.325	2.386	2.341
1.500	0.000	0.350	0.694	1.319	1.790	2.114	2.292	2.352	2.313
1.600	0.000	0.340	0.670	1.288	1.771	2.086	2.256	2.316	2.282
1.700	0.000	0.329	0.648	1.259	1.748	2.053	2.217	2.278	2.250
1.800	0.000	0.318	0.629	1.231	1.719	2.014	2.176	2.239	2.217
1.900	0.000	0.307	0.611	1.204	1.683	1.970	2.133	2.200	2.186

draught	KN (For Diff Heel Angles) 80.0
0.500	2.173
0.600	2.220
0.700	2.244
0.800	2.255
0.900	2.258
1.000	2.254
1.100	2.247
1.200	2.235
1.300	2.221
1.400	2.204
1.500	2.186
1.600	2.166
1.700	2.143
1.800	2.121
1.900	2.099

Trim: 0.3 m

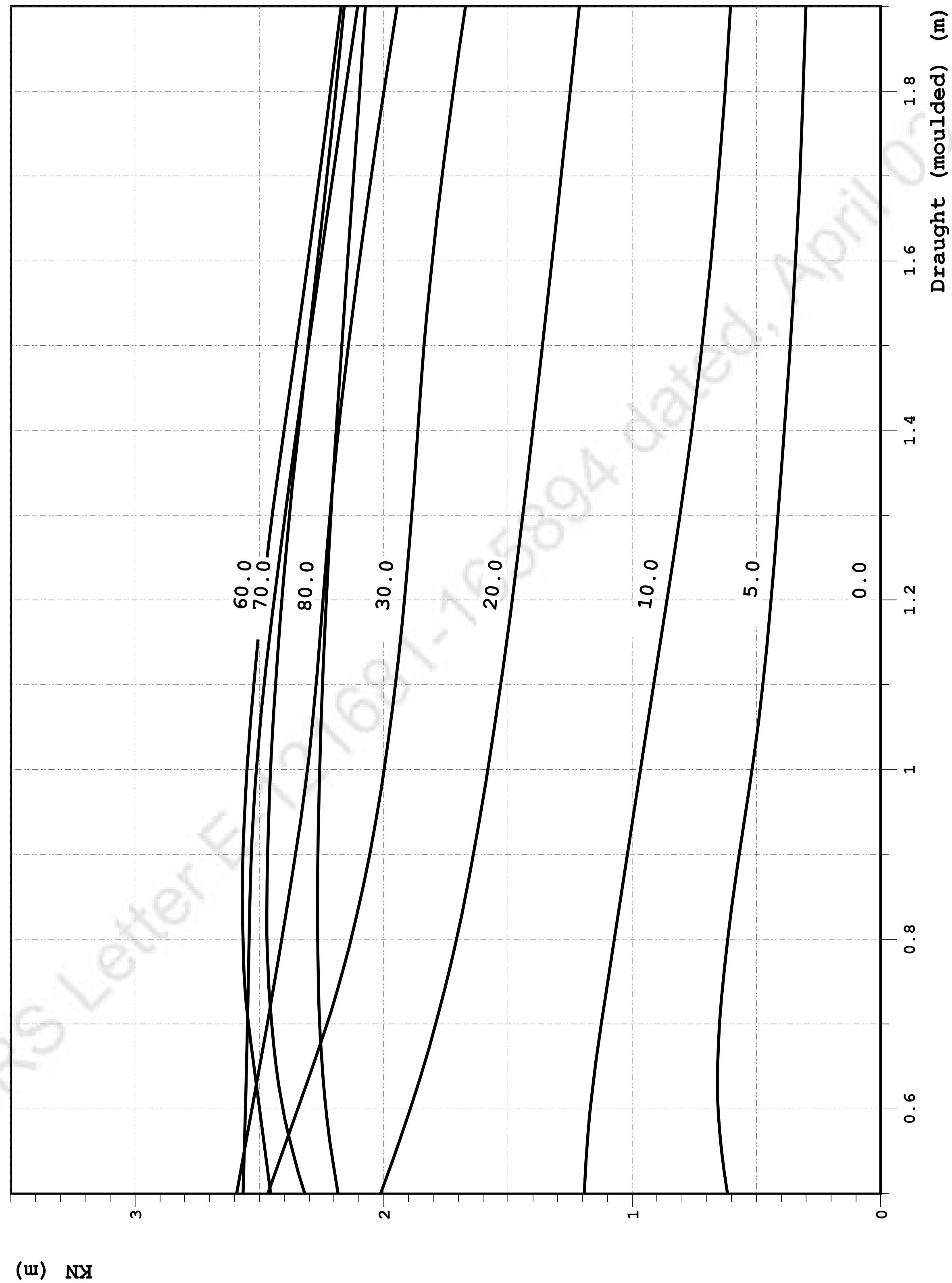


Trim: -0.4 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.617	1.193	2.012	2.466	2.591	2.565	2.455	2.317
0.600	0.000	0.655	1.169	1.892	2.345	2.529	2.555	2.499	2.405
0.700	0.000	0.649	1.124	1.790	2.228	2.468	2.547	2.544	2.450
0.800	0.000	0.616	1.072	1.707	2.131	2.409	2.541	2.566	2.469
0.900	0.000	0.570	1.019	1.639	2.056	2.354	2.532	2.566	2.467
1.000	0.000	0.518	0.967	1.581	1.998	2.306	2.512	2.550	2.455
1.100	0.000	0.475	0.914	1.529	1.952	2.272	2.481	2.522	2.435
1.200	0.000	0.441	0.860	1.483	1.916	2.244	2.441	2.488	2.409
1.300	0.000	0.414	0.808	1.440	1.887	2.216	2.396	2.448	2.379
1.400	0.000	0.388	0.760	1.400	1.862	2.182	2.350	2.400	2.343
1.500	0.000	0.364	0.719	1.361	1.837	2.142	2.302	2.351	2.305
1.600	0.000	0.343	0.684	1.323	1.805	2.098	2.253	2.304	2.266
1.700	0.000	0.326	0.653	1.285	1.765	2.050	2.204	2.258	2.228
1.800	0.000	0.312	0.627	1.249	1.720	1.999	2.154	2.214	2.192
1.900	0.000	0.301	0.605	1.212	1.671	1.946	2.104	2.171	2.158

draught	KN (For Diff Heel Angles) 80.0
0.500	2.183
0.600	2.232
0.700	2.257
0.800	2.265
0.900	2.265
1.000	2.257
1.100	2.246
1.200	2.231
1.300	2.212
1.400	2.191
1.500	2.168
1.600	2.144
1.700	2.120
1.800	2.096
1.900	2.073

Trim: -0.4 m

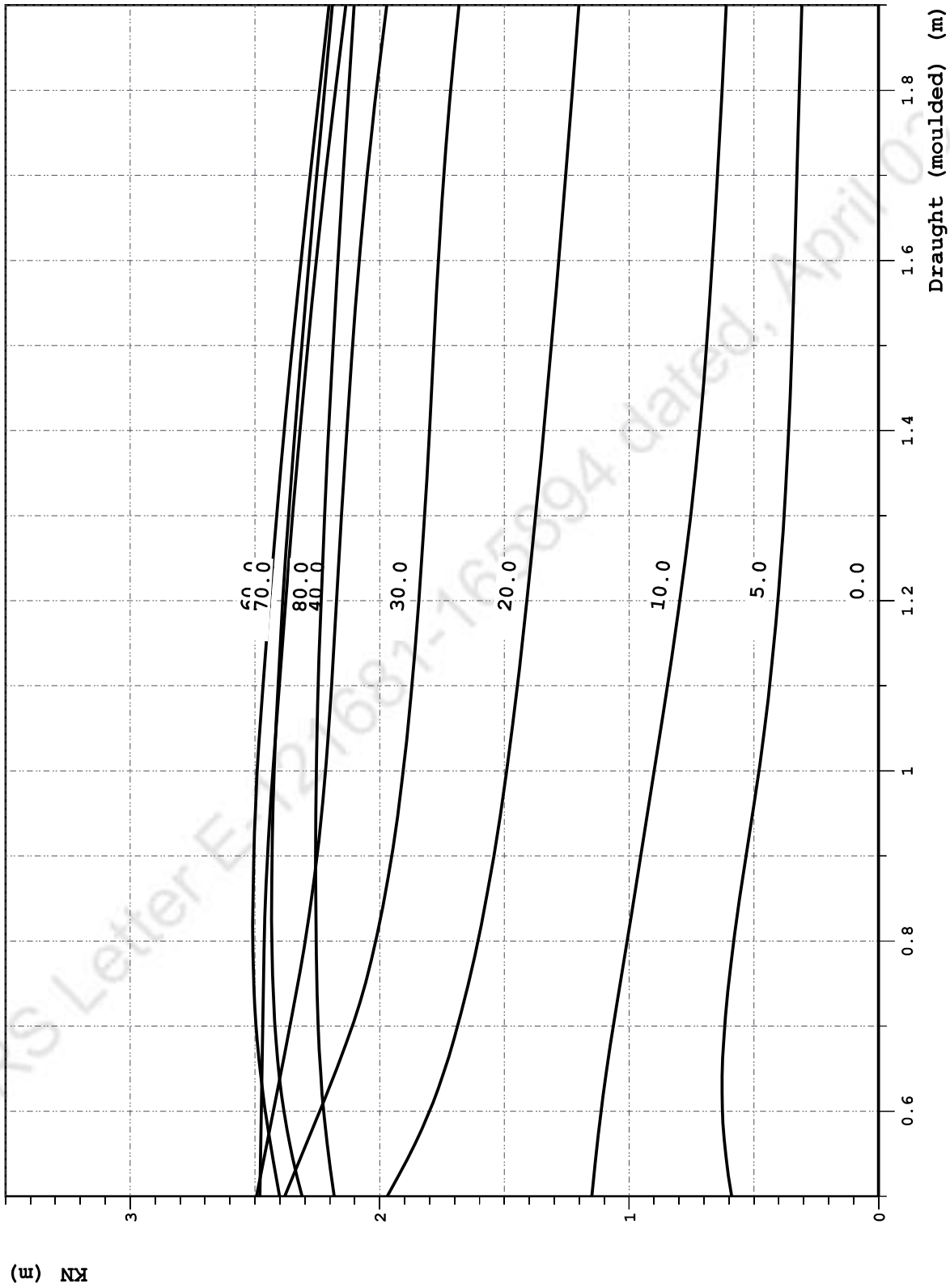


Trim: 0.4 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.589	1.150	1.969	2.381	2.493	2.481	2.401	2.311
0.600	0.000	0.626	1.113	1.800	2.240	2.426	2.475	2.458	2.384
0.700	0.000	0.617	1.064	1.687	2.109	2.360	2.469	2.496	2.419
0.800	0.000	0.581	1.008	1.606	2.016	2.299	2.463	2.509	2.432
0.900	0.000	0.531	0.954	1.542	1.951	2.251	2.450	2.504	2.431
1.000	0.000	0.479	0.900	1.491	1.905	2.217	2.428	2.491	2.423
1.100	0.000	0.437	0.846	1.448	1.870	2.193	2.403	2.468	2.407
1.200	0.000	0.404	0.796	1.410	1.843	2.173	2.377	2.442	2.389
1.300	0.000	0.379	0.753	1.375	1.820	2.153	2.349	2.413	2.365
1.400	0.000	0.361	0.718	1.342	1.800	2.132	2.319	2.383	2.339
1.500	0.000	0.347	0.689	1.312	1.783	2.108	2.288	2.350	2.312
1.600	0.000	0.337	0.666	1.282	1.765	2.082	2.254	2.315	2.283
1.700	0.000	0.328	0.646	1.254	1.743	2.050	2.217	2.279	2.252
1.800	0.000	0.318	0.628	1.227	1.716	2.013	2.177	2.241	2.220
1.900	0.000	0.308	0.611	1.202	1.682	1.971	2.135	2.203	2.189

draught	KN (For Diff Heel Angles) 80.0
0.500	2.183
0.600	2.225
0.700	2.247
0.800	2.255
0.900	2.257
1.000	2.253
1.100	2.246
1.200	2.235
1.300	2.221
1.400	2.205
1.500	2.187
1.600	2.167
1.700	2.146
1.800	2.124
1.900	2.102

Trim: 0.4 m

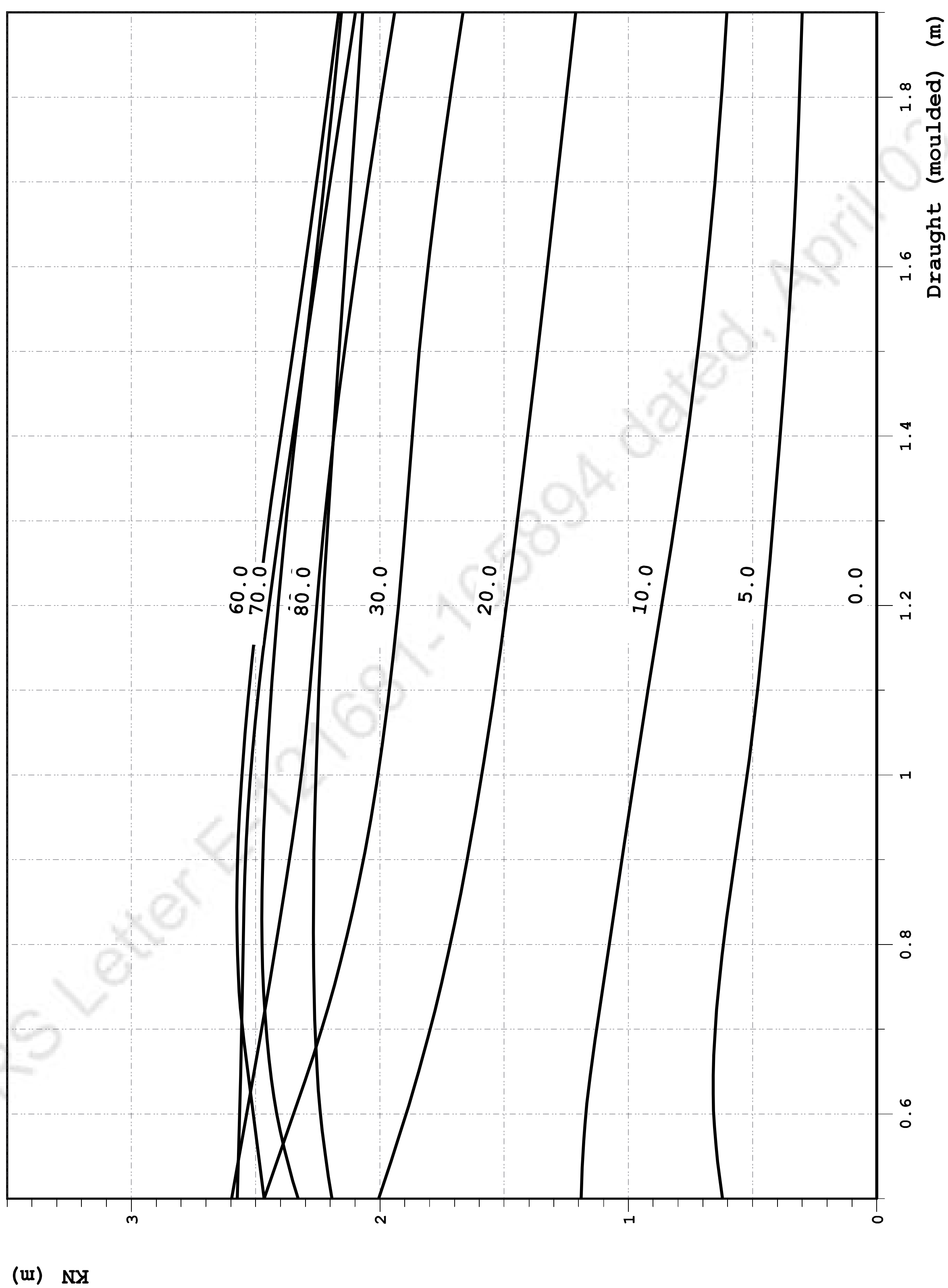


Trim: -0.5 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.621	1.190	2.005	2.466	2.597	2.574	2.466	2.329
0.600	0.000	0.656	1.171	1.894	2.347	2.536	2.565	2.509	2.415
0.700	0.000	0.650	1.128	1.797	2.234	2.476	2.556	2.552	2.458
0.800	0.000	0.618	1.077	1.717	2.140	2.418	2.550	2.574	2.474
0.900	0.000	0.571	1.026	1.649	2.066	2.364	2.541	2.573	2.471
1.000	0.000	0.522	0.974	1.590	2.008	2.316	2.521	2.555	2.457
1.100	0.000	0.480	0.921	1.538	1.962	2.282	2.488	2.527	2.436
1.200	0.000	0.447	0.866	1.491	1.925	2.254	2.446	2.491	2.409
1.300	0.000	0.417	0.812	1.447	1.896	2.223	2.399	2.448	2.377
1.400	0.000	0.389	0.763	1.405	1.870	2.185	2.350	2.399	2.340
1.500	0.000	0.363	0.720	1.365	1.841	2.143	2.300	2.349	2.301
1.600	0.000	0.342	0.683	1.325	1.806	2.096	2.250	2.301	2.261
1.700	0.000	0.325	0.652	1.287	1.764	2.046	2.200	2.254	2.224
1.800	0.000	0.311	0.625	1.250	1.717	1.994	2.149	2.209	2.188
1.900	0.000	0.301	0.604	1.211	1.666	1.940	2.098	2.165	2.154

draught	KN (For Diff Heel Angles) 80.0
0.500	2.193
0.600	2.239
0.700	2.260
0.800	2.267
0.900	2.265
1.000	2.258
1.100	2.245
1.200	2.229
1.300	2.209
1.400	2.187
1.500	2.164
1.600	2.140
1.700	2.116
1.800	2.092
1.900	2.070

Trim: -0.5 m

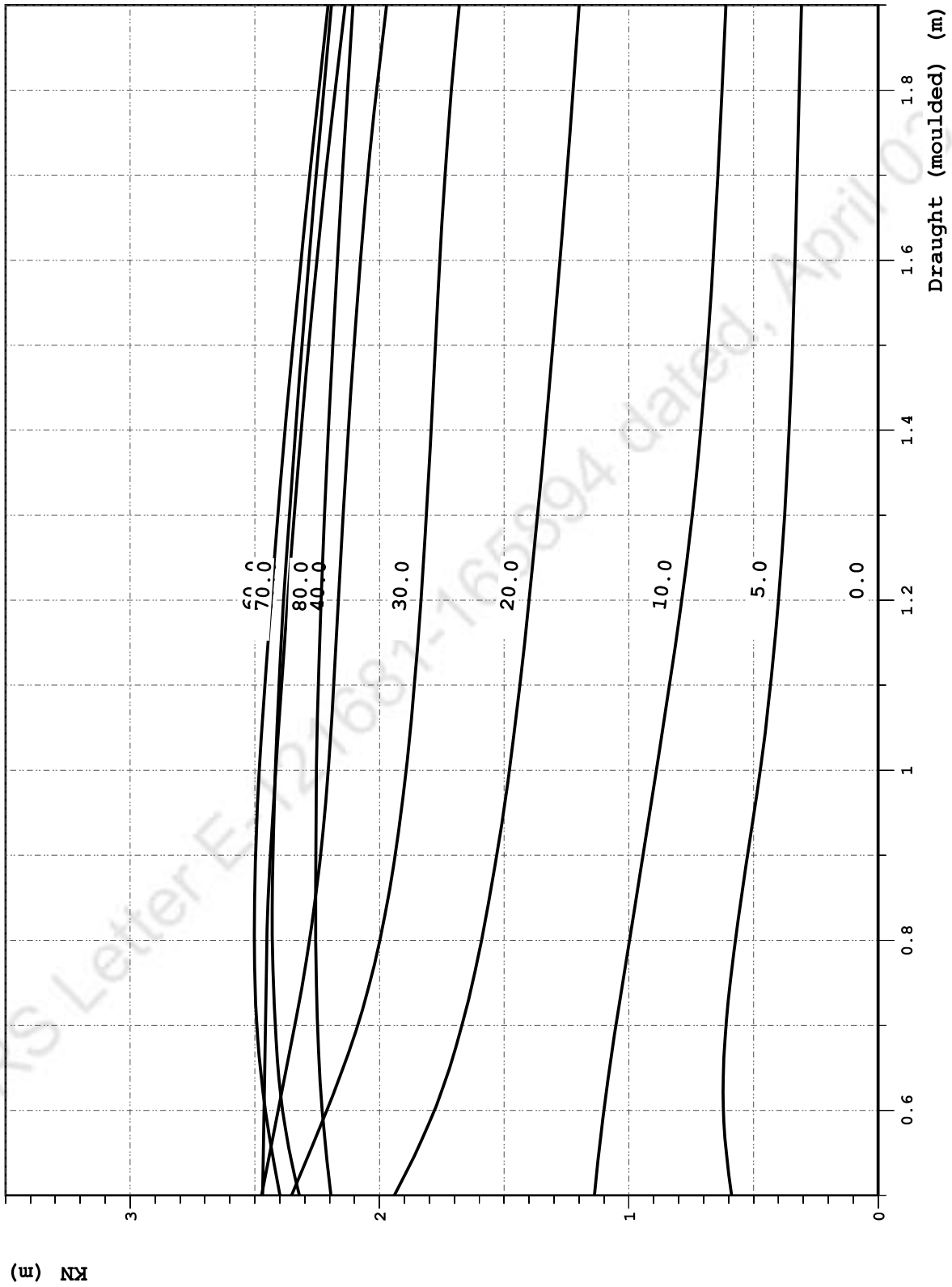


Trim: 0.5 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.587	1.138	1.940	2.353	2.473	2.469	2.400	2.321
0.600	0.000	0.621	1.100	1.780	2.211	2.406	2.463	2.458	2.389
0.700	0.000	0.610	1.052	1.669	2.088	2.339	2.458	2.492	2.418
0.800	0.000	0.573	0.997	1.591	1.999	2.281	2.452	2.502	2.430
0.900	0.000	0.524	0.943	1.529	1.937	2.237	2.438	2.497	2.428
1.000	0.000	0.473	0.890	1.479	1.893	2.205	2.417	2.482	2.418
1.100	0.000	0.432	0.838	1.437	1.860	2.183	2.393	2.460	2.403
1.200	0.000	0.400	0.788	1.400	1.833	2.165	2.368	2.434	2.385
1.300	0.000	0.375	0.746	1.366	1.812	2.146	2.342	2.408	2.361
1.400	0.000	0.357	0.712	1.334	1.793	2.125	2.314	2.379	2.337
1.500	0.000	0.344	0.684	1.304	1.776	2.102	2.284	2.348	2.311
1.600	0.000	0.334	0.662	1.276	1.758	2.077	2.251	2.314	2.283
1.700	0.000	0.326	0.643	1.249	1.737	2.047	2.216	2.280	2.254
1.800	0.000	0.317	0.626	1.223	1.712	2.012	2.178	2.243	2.224
1.900	0.000	0.308	0.610	1.199	1.680	1.972	2.137	2.206	2.193

draught	KN (For Diff Heel Angles) 80.0
0.500	2.194
0.600	2.230
0.700	2.249
0.800	2.256
0.900	2.256
1.000	2.253
1.100	2.245
1.200	2.234
1.300	2.221
1.400	2.205
1.500	2.187
1.600	2.169
1.700	2.149
1.800	2.128
1.900	2.106

Trim: 0.5 m

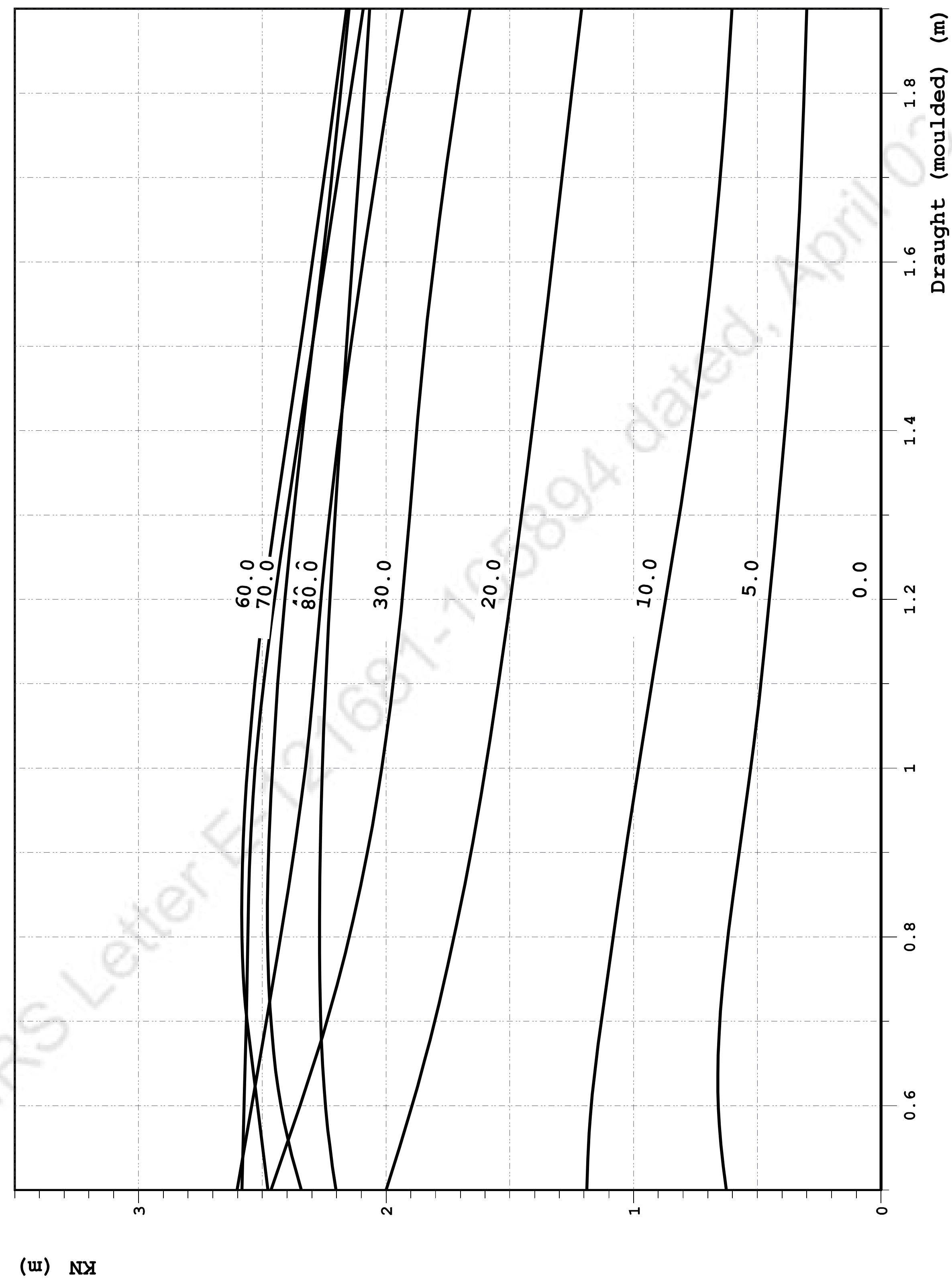


Trim: -0.6 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.625	1.189	1.999	2.464	2.601	2.583	2.477	2.342
0.600	0.000	0.658	1.171	1.895	2.348	2.542	2.573	2.519	2.424
0.700	0.000	0.652	1.130	1.803	2.239	2.483	2.565	2.561	2.465
0.800	0.000	0.619	1.083	1.725	2.149	2.426	2.558	2.582	2.479
0.900	0.000	0.574	1.033	1.657	2.075	2.372	2.550	2.579	2.475
1.000	0.000	0.526	0.981	1.598	2.017	2.326	2.528	2.560	2.458
1.100	0.000	0.486	0.927	1.546	1.971	2.291	2.495	2.530	2.437
1.200	0.000	0.451	0.871	1.498	1.935	2.263	2.450	2.491	2.408
1.300	0.000	0.419	0.815	1.453	1.904	2.228	2.401	2.446	2.374
1.400	0.000	0.388	0.764	1.410	1.876	2.188	2.350	2.396	2.337
1.500	0.000	0.362	0.720	1.368	1.844	2.142	2.298	2.346	2.297
1.600	0.000	0.340	0.683	1.328	1.806	2.094	2.247	2.297	2.257
1.700	0.000	0.324	0.650	1.289	1.762	2.042	2.196	2.250	2.219
1.800	0.000	0.311	0.624	1.250	1.713	1.989	2.144	2.204	2.183
1.900	0.000	0.300	0.603	1.209	1.660	1.934	2.092	2.160	2.149

draught	KN (For Diff Heel Angles) 80.0
0.500	2.202
0.600	2.245
0.700	2.264
0.800	2.269
0.900	2.266
1.000	2.257
1.100	2.244
1.200	2.227
1.300	2.206
1.400	2.183
1.500	2.159
1.600	2.136
1.700	2.111
1.800	2.088
1.900	2.066

Trim: -0.6 m

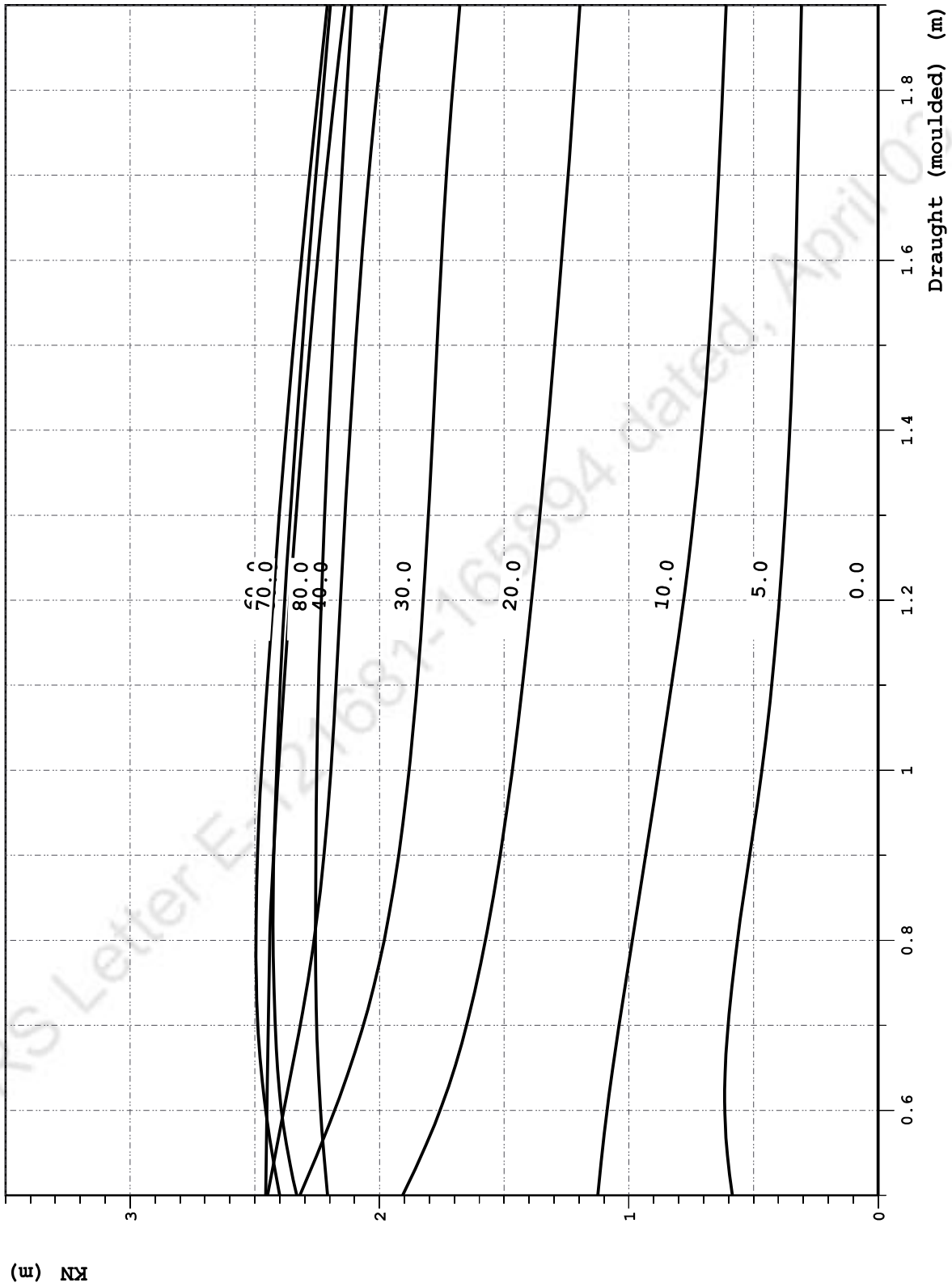


Trim: 0.6 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.585	1.125	1.907	2.319	2.449	2.456	2.401	2.332
0.600	0.000	0.616	1.087	1.757	2.180	2.384	2.451	2.456	2.393
0.700	0.000	0.602	1.039	1.651	2.065	2.318	2.446	2.488	2.418
0.800	0.000	0.565	0.986	1.575	1.981	2.263	2.440	2.495	2.427
0.900	0.000	0.515	0.933	1.516	1.923	2.222	2.425	2.490	2.424
1.000	0.000	0.466	0.880	1.468	1.881	2.194	2.405	2.473	2.412
1.100	0.000	0.427	0.829	1.426	1.850	2.174	2.383	2.451	2.398
1.200	0.000	0.397	0.780	1.390	1.824	2.156	2.360	2.427	2.380
1.300	0.000	0.373	0.739	1.357	1.804	2.138	2.335	2.402	2.358
1.400	0.000	0.354	0.706	1.326	1.786	2.118	2.308	2.375	2.334
1.500	0.000	0.341	0.679	1.297	1.769	2.096	2.279	2.345	2.309
1.600	0.000	0.330	0.658	1.270	1.752	2.072	2.248	2.313	2.283
1.700	0.000	0.323	0.639	1.244	1.731	2.043	2.215	2.280	2.256
1.800	0.000	0.316	0.624	1.219	1.707	2.010	2.178	2.245	2.227
1.900	0.000	0.308	0.609	1.196	1.677	1.971	2.139	2.209	2.197

draught	KN (For Diff Heel Angles) 80.0
0.500	2.208
0.600	2.237
0.700	2.252
0.800	2.257
0.900	2.255
1.000	2.252
1.100	2.245
1.200	2.234
1.300	2.220
1.400	2.205
1.500	2.188
1.600	2.170
1.700	2.151
1.800	2.131
1.900	2.110

Trim: 0.6 m

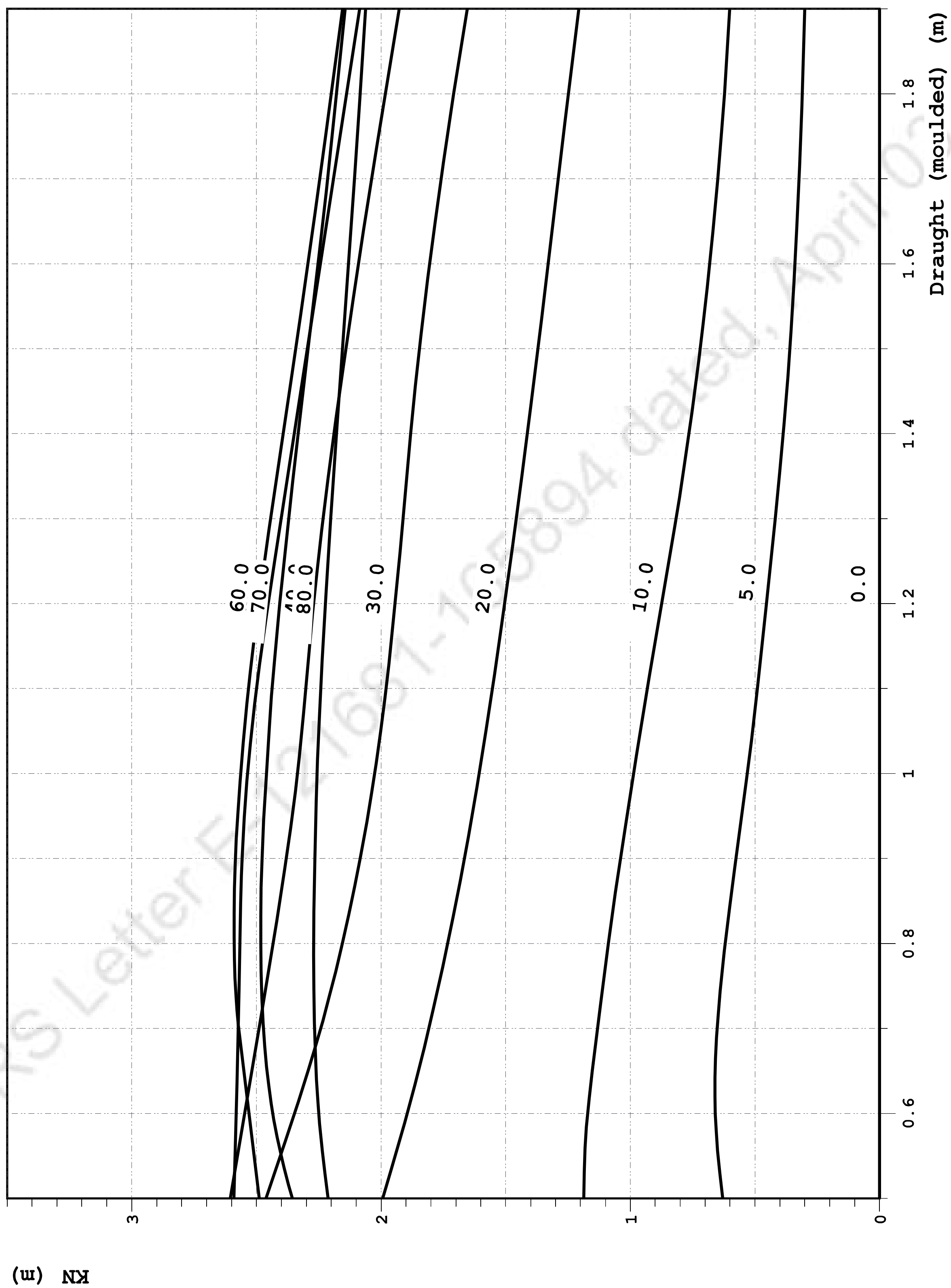


Trim: -0.7 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.629	1.187	1.993	2.461	2.605	2.590	2.488	2.356
0.600	0.000	0.659	1.172	1.895	2.347	2.547	2.581	2.530	2.435
0.700	0.000	0.652	1.132	1.808	2.242	2.489	2.573	2.571	2.471
0.800	0.000	0.619	1.088	1.733	2.155	2.433	2.567	2.589	2.483
0.900	0.000	0.577	1.039	1.665	2.084	2.380	2.558	2.584	2.477
1.000	0.000	0.531	0.987	1.606	2.026	2.335	2.535	2.563	2.460
1.100	0.000	0.490	0.932	1.553	1.980	2.301	2.500	2.532	2.437
1.200	0.000	0.454	0.874	1.504	1.944	2.270	2.453	2.491	2.406
1.300	0.000	0.419	0.817	1.458	1.912	2.233	2.401	2.443	2.370
1.400	0.000	0.387	0.765	1.413	1.882	2.189	2.348	2.392	2.332
1.500	0.000	0.360	0.720	1.371	1.846	2.141	2.296	2.342	2.293
1.600	0.000	0.339	0.681	1.330	1.805	2.090	2.243	2.293	2.253
1.700	0.000	0.323	0.649	1.290	1.759	2.038	2.191	2.245	2.214
1.800	0.000	0.310	0.623	1.249	1.708	1.983	2.138	2.199	2.178
1.900	0.000	0.300	0.602	1.206	1.654	1.927	2.086	2.154	2.144

draught	KN (For Diff Heel Angles) 80.0
0.500	2.212
0.600	2.250
0.700	2.267
0.800	2.270
0.900	2.266
1.000	2.257
1.100	2.242
1.200	2.224
1.300	2.202
1.400	2.179
1.500	2.155
1.600	2.131
1.700	2.106
1.800	2.083
1.900	2.062

Trim: -0.7 m

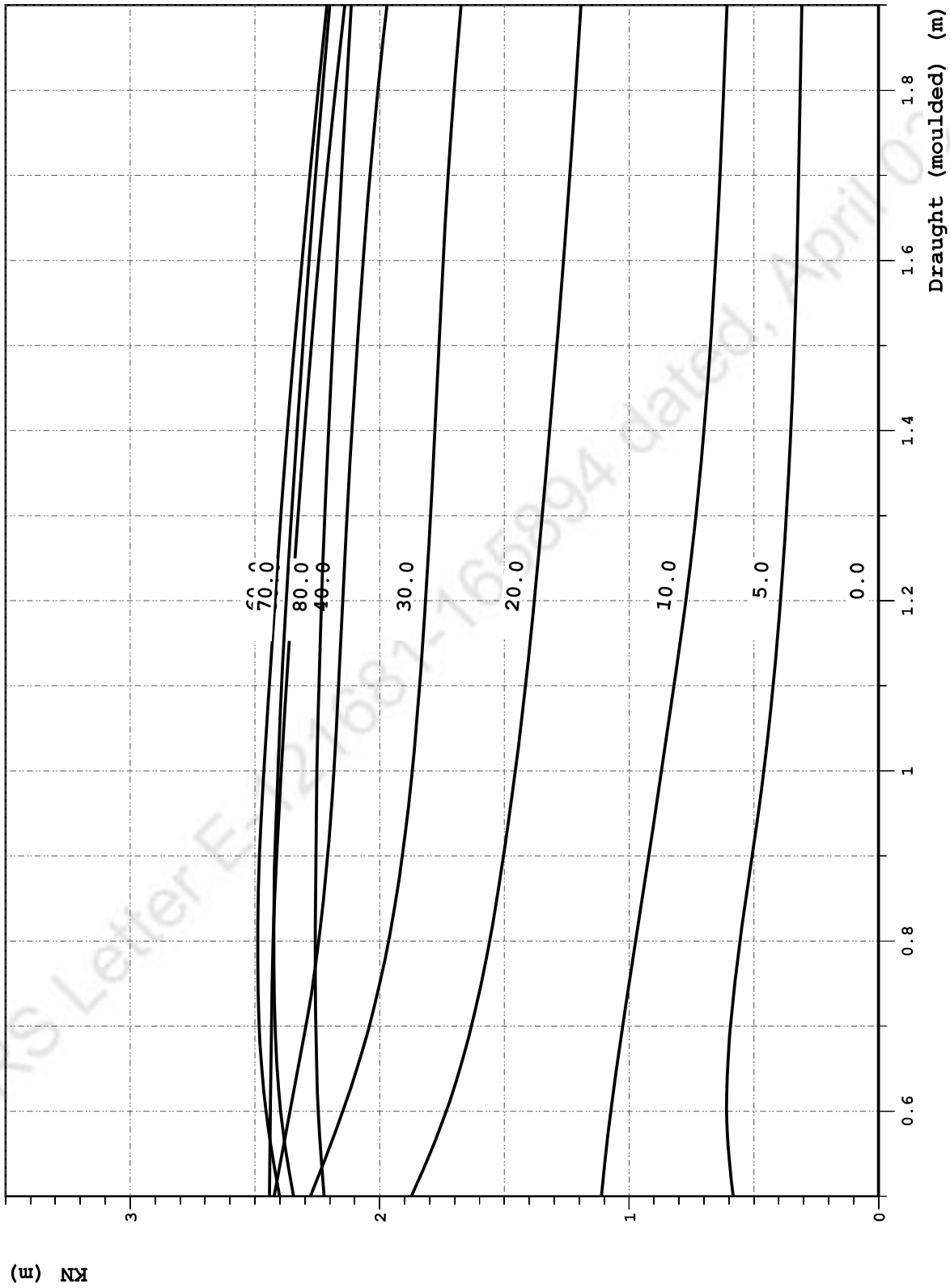


Trim: 0.7 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.583	1.111	1.873	2.278	2.423	2.442	2.402	2.345
0.600	0.000	0.609	1.074	1.733	2.148	2.359	2.439	2.455	2.397
0.700	0.000	0.594	1.026	1.632	2.042	2.295	2.434	2.484	2.420
0.800	0.000	0.556	0.974	1.559	1.964	2.245	2.428	2.489	2.424
0.900	0.000	0.507	0.921	1.503	1.909	2.209	2.413	2.482	2.420
1.000	0.000	0.460	0.870	1.456	1.870	2.184	2.395	2.464	2.408
1.100	0.000	0.423	0.820	1.416	1.840	2.165	2.374	2.443	2.394
1.200	0.000	0.393	0.773	1.380	1.816	2.148	2.352	2.420	2.375
1.300	0.000	0.370	0.733	1.348	1.796	2.131	2.328	2.396	2.354
1.400	0.000	0.351	0.700	1.318	1.779	2.111	2.302	2.370	2.332
1.500	0.000	0.338	0.674	1.290	1.763	2.090	2.274	2.342	2.308
1.600	0.000	0.328	0.653	1.263	1.745	2.066	2.245	2.311	2.283
1.700	0.000	0.320	0.636	1.238	1.726	2.039	2.213	2.280	2.257
1.800	0.000	0.314	0.621	1.215	1.702	2.007	2.178	2.246	2.229
1.900	0.000	0.308	0.608	1.193	1.674	1.971	2.140	2.211	2.200

draught	KN (For Diff Heel Angles) 80.0
0.500	2.222
0.600	2.246
0.700	2.256
0.800	2.258
0.900	2.255
1.000	2.251
1.100	2.243
1.200	2.233
1.300	2.220
1.400	2.205
1.500	2.188
1.600	2.171
1.700	2.153
1.800	2.134
1.900	2.114

Trim: 0.7 m

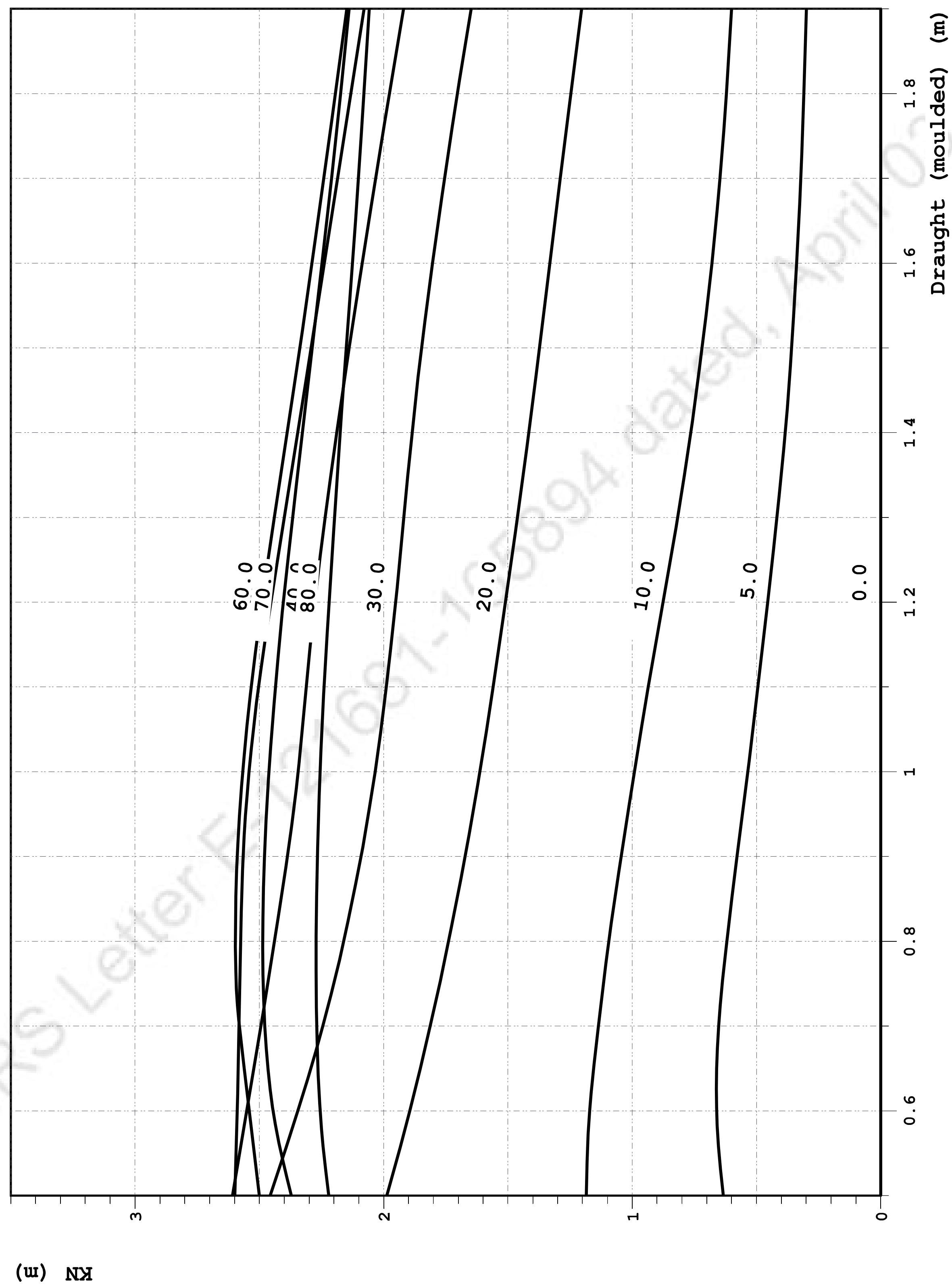


Trim: -0.8 m

draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.634	1.185	1.987	2.456	2.608	2.598	2.500	2.371
0.600	0.000	0.661	1.171	1.895	2.345	2.551	2.589	2.541	2.445
0.700	0.000	0.652	1.136	1.812	2.244	2.494	2.581	2.580	2.478
0.800	0.000	0.620	1.094	1.739	2.161	2.439	2.575	2.596	2.486
0.900	0.000	0.579	1.045	1.672	2.091	2.387	2.565	2.589	2.479
1.000	0.000	0.535	0.992	1.613	2.034	2.344	2.541	2.566	2.461
1.100	0.000	0.494	0.936	1.559	1.989	2.311	2.503	2.533	2.435
1.200	0.000	0.455	0.876	1.510	1.952	2.276	2.453	2.489	2.403
1.300	0.000	0.418	0.817	1.462	1.919	2.235	2.400	2.439	2.366
1.400	0.000	0.385	0.765	1.416	1.885	2.189	2.346	2.388	2.327
1.500	0.000	0.359	0.719	1.373	1.847	2.139	2.292	2.337	2.287
1.600	0.000	0.338	0.680	1.331	1.803	2.087	2.238	2.288	2.248
1.700	0.000	0.322	0.647	1.290	1.755	2.032	2.185	2.240	2.210
1.800	0.000	0.310	0.621	1.247	1.703	1.976	2.132	2.194	2.173
1.900	0.000	0.299	0.601	1.203	1.648	1.919	2.078	2.148	2.139

draught	KN (For Diff Heel Angles) 80.0
0.500	2.221
0.600	2.255
0.700	2.269
0.800	2.272
0.900	2.266
1.000	2.256
1.100	2.240
1.200	2.220
1.300	2.198
1.400	2.175
1.500	2.150
1.600	2.126
1.700	2.101
1.800	2.079
1.900	2.058

Trim: -0.8 m

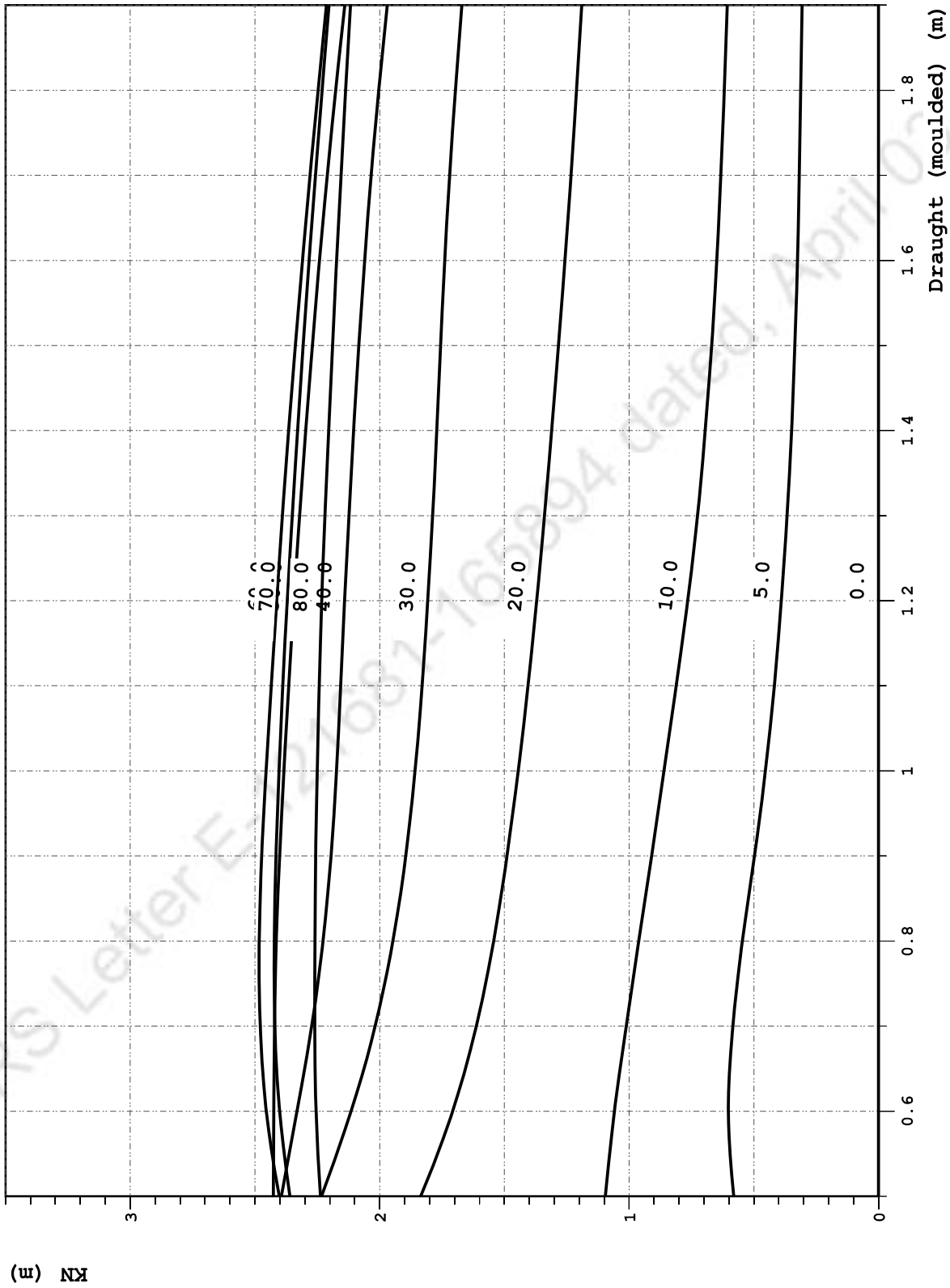


Trim: 0.8 m

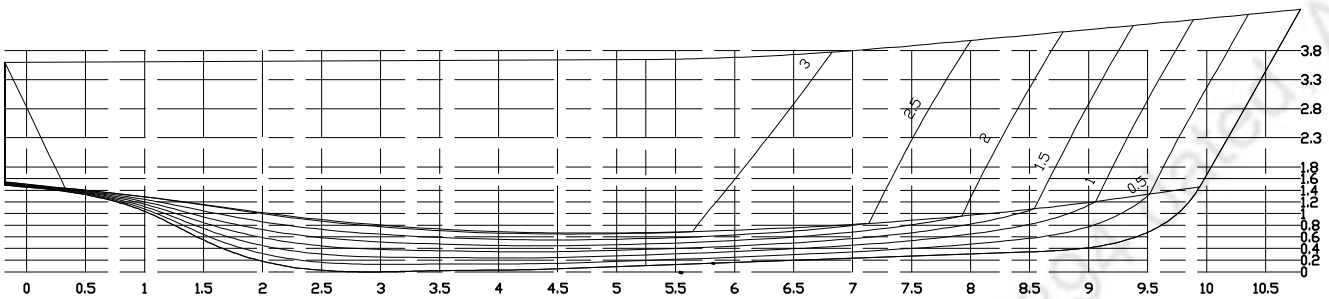
draught	KN (For Diff Heel Angles) 0.0	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0
0.500	0.000	0.581	1.095	1.836	2.233	2.394	2.426	2.402	2.359
0.600	0.000	0.602	1.059	1.707	2.114	2.331	2.425	2.454	2.401
0.700	0.000	0.584	1.012	1.613	2.018	2.272	2.421	2.479	2.420
0.800	0.000	0.546	0.962	1.543	1.947	2.227	2.414	2.483	2.423
0.900	0.000	0.498	0.910	1.490	1.896	2.195	2.401	2.474	2.416
1.000	0.000	0.454	0.860	1.444	1.858	2.173	2.384	2.455	2.403
1.100	0.000	0.418	0.811	1.405	1.830	2.156	2.365	2.434	2.389
1.200	0.000	0.390	0.765	1.371	1.807	2.140	2.344	2.413	2.370
1.300	0.000	0.367	0.726	1.339	1.788	2.123	2.321	2.390	2.350
1.400	0.000	0.349	0.695	1.310	1.772	2.105	2.296	2.366	2.329
1.500	0.000	0.335	0.669	1.283	1.756	2.084	2.269	2.338	2.307
1.600	0.000	0.325	0.649	1.257	1.739	2.060	2.241	2.310	2.283
1.700	0.000	0.318	0.632	1.233	1.720	2.034	2.210	2.279	2.258
1.800	0.000	0.312	0.618	1.210	1.697	2.004	2.177	2.247	2.231
1.900	0.000	0.307	0.606	1.190	1.670	1.969	2.140	2.213	2.203

draught	KN (For Diff Heel Angles) 80.0
0.500	2.237
0.600	2.255
0.700	2.261
0.800	2.259
0.900	2.256
1.000	2.250
1.100	2.242
1.200	2.232
1.300	2.219
1.400	2.204
1.500	2.189
1.600	2.172
1.700	2.155
1.800	2.137
1.900	2.117

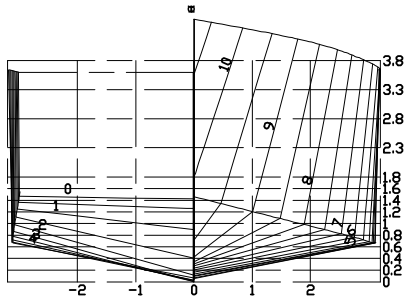
Trim: 0.8 m



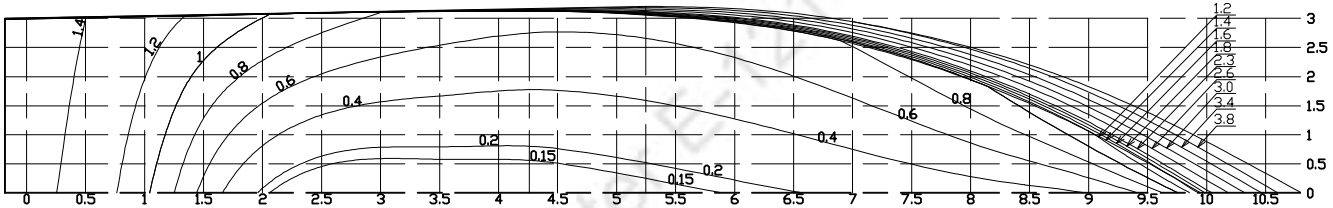
9 LINES PLAN



PROFILE VIEW



SECTION VIEW



PLAN VIEW

MAIN PARTICULARS :

LENGTH O.A.....	abt 22.70 M.
LENGTH B.P.....	abt 20.21M.
BREADTH (MLD).....	abt 6.40 M.
DEPTH (MIDSHIP).....	abt 3.00 M.
DRAFT (MAX.).....	abt 1.80 M.
FRAME SPACING.....	450 MM
SPEED.....	8 KNOTS.
REFRIGERATED FISH HOLD.....abt 40 Cu m.	

NOTE:

1. DRAWING ONLY FOR IN PRINCIPLE APPROVAL
2. THIS DRAWING IS ONLY FOR GUIDANCE ONLY.

VARIANT 1

No:	Date	Description	Drawn	Checked	Approved
Rev.0	13.Mar 2021	Preliminary	Amal S	Abhishek	Binoy

CUSTOMER TBD

Yard Nos: TBD

FISHING VESSEL FV-R40

TITLE

Lines Plan

COCHIN SHIPYARD LIMITED
P.O. Bag 1653, COCHIN-682015, INDIA

Scale	Format	Project No.	Dwg. no.
1:80	A3	FV-R40	FVR40-101-002