

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for **MOTOR VESSEL**
Steamer, Sailing Ship, Tanker

having RAISED QUARTER DECK AND FORECASTLE.

Port of Survey ROTTERDAM

Date of Survey BUILDING

Name of Surveyor L. VUYK.

Particulars of Classification 100 A1
(Contemplated)

(Type of Superstructures.)

Ship's Name M.S. "TON. S" Nationality and Port of Registry DUTCH ROTTERDAM Official Number 1937 Gross Tonnage 900.02 M³ Date of Build 1937

Moulded Dimensions: Length 48.50 M^R Breadth 8.00 M^E Depth 3.60 M^E

Moulded displacement at moulded draught = 85 per cent. of moulded depth 900.02 M³

Coefficient of fineness for use with Tables .758

Depth for Freeboard (D)

Moulded depth ... 3.60

Stringer plate01

Sheathing on exposed deck ✓

$T \left(\frac{L-S}{L} \right) =$ ✓

Depth for Freeboard (D) = 3.61

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = 8.33 (3.61 - 3.23) 12.25 = + 39 m.m.

(b) Where D is less than Table depth (if allowed)
(Table depth-D) R = ✓

If restricted by superstructures ✓

Round of Beam correction

Moulded Breadth (B) 8.00

Standard Round of Beam = $\frac{B \times 12}{50} =$.16

Ship's Round of Beam = .16

Difference NIL.

Restricted to

Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) =$ NIL.

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...						Standard Height of Superstructure <u>1.83 M.</u>
" overhang ...						" " R.Q.D. <u>1.032 M.</u>
R.Q.D. enclosed ...	<u>13.28</u>	<u>13.28</u>	<u>1.13</u>	<u>✓</u>	<u>13.28</u>	Deduction for complete superstructure <u>554 m.m.</u>
" overhang ...						Percentage covered $\frac{S}{L} =$ <u>40.45</u>
Bridge enclosed...						" " $\frac{S_1}{L} =$ <u>40.45</u>
" overhang aft ...						" " $\frac{E}{L} =$ <u>40.45</u>
" overhang forward						Percentage from Table, Line A. <u>23.88</u>
Fore enclosed ...	<u>6.34</u>	<u>6.34</u>	<u>2.13</u>	<u>✓</u>	<u>6.34</u>	(corrected for absence of forecastle (if required))
" overhang ...						Percentage from Table, Line B. <u>✓</u>
Trunk aft ...						(corrected for absence of forecastle (if required)) <u>✓</u>
" forward ...						Interpolation for bridge less than 2L (if required) <u>✓</u>
Tonnage opening aft ...						Deduction = <u>554 × 23.88 = 133 m.m.</u>
" " forward						
Total ...	<u>19.62</u>	<u>19.62</u>			<u>19.62</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product	
A.P. ...	<u>658</u>	1	<u>658</u>	<u>718</u>	<u>718</u>	1	<u>718</u>	Mean actual sheer aft = <u>Express</u>
$\frac{1}{2}L$ from A.P. ...	<u>293</u>	4	<u>1172</u>	<u>320</u>	<u>320</u>	4	<u>1280</u>	Mean actual sheer forward = <u>Express</u>
$\frac{2}{3}L$ " ...	<u>73</u>	2	<u>146</u>	<u>85</u>	<u>85</u>	2	<u>170</u>	Mean standard sheer aft = <u>Express</u>
Amidships ...	<u>-</u>	4	<u>-</u>	<u>-</u>	<u>-</u>	4	<u>-</u>	Mean standard sheer forward = <u>Express</u>
$\frac{2}{3}L$ from F.P. ...	<u>146</u>	2	<u>292</u>	<u>151</u>	<u>151</u>	2	<u>302</u>	Length of enclosed superstructure forward of amidships =
$\frac{1}{2}L$ " ...	<u>585</u>	4	<u>2340</u>	<u>592</u>	<u>592</u>	4	<u>2368</u>	" " aft of " =
F.P. ...	<u>1316</u>	1	<u>1316</u>	<u>1336</u>	<u>1336</u>	1	<u>1336</u>	
Total ...			<u>5924</u>				<u>6174</u>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{250}{18} (.75 - .2022) = - 8 \text{ m.m.}$

If limited on account of midship superstructure. Yes. No allowance. If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 3.610

Summer freeboard = .360

Moulded draught (d) = 3.25

Deduction for Tropical freeboard and addition for Winter freeboard = d inches = 68 m.m.

Addition for Winter North Atlantic Freeboard (if required) = 118 m.m. = 12 cms.

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta =$ 981 M³

Tons per inch immersion at summer load water line $T =$ 3.46 M³ per cm.

Deduction = $\frac{\Delta}{40T}$ inches = 41 m.m.

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.758 + .68}{1.36} = \frac{1.438}{1.36}$

	+	-
Depth Correction ...	<u>39</u>	<u>-</u>
Deduction for superstructures ...	<u>-</u>	<u>133</u>
Sheer correction ...	<u>-</u>	<u>-</u>
Round of Beam correction...	<u>-</u>	<u>-</u>
Correction for Thickness of Deck amidships	<u>-</u>	<u>-</u>
Other corrections, scantlings, etc. ...	<u>-</u>	<u>-</u>
	<u>39</u>	<u>133</u>

Summer Freeboard = 356 m.m.

426 m.m.

450 m.m.

22.6.37

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:

Tropical Fresh Water Line above Centre of Disc ...	<u>14 cms</u>	Tropical Fresh Water Freeboard ...	<u>22</u>
Fresh Water Line " " ...	<u>4</u>	Fresh Water " " ...	<u>29</u>
Tropical Line " " ...	<u>7</u>	Tropical " " ...	<u>29</u>
Winter Line below " " ...	<u>4</u>	Winter " " ...	<u>43</u>
Winter North Atlantic Line " " ...	<u>12</u>	Winter North Atlantic " " ...	<u>48</u>

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS.									
Description of Hatchway	No. 1.		No. 2.				
Dimensions of Hatchway	11.445 x 5.000		11.445 x 5.000				
COAMINGS	Height above Deck	...	1220		1220				
	Thickness	...	10		10				
	Sides	...	9		9				
	Stiffeners	...	180 x 75 x 10 BA		180 x 75 x 10 BA				
HATCH BEAMS	Brackets, Stays	...	3 flanged brackets 82		3 flanged brackets 82				
	Number	...	6		6				
	Spacing	...	1635		1635				
	Scantling and Sketch	...	plate 410 x 9 angles 100 x 75 x 11		plate 410 x 9 angles 100 x 75 x 11				
FORE AND AFTERS	Bearing Surface	...	90		90				
	Number	...	9		9				
	Spacing	...	flanged bracket fitted to hatch beam on No. 67 frame		flanged bracket fitted to hatch beam on No. 34 frame				
	Unsupported Lengths	...							
HATCH COVERS	Scantling* and Sketch	...							
	Bearing Surface	...							
	Material	...	pine		pine				
	Thickness	...	65		65				
Spacing of Cleats	How fitted	...	longitudinally		longitudinally				
	Bearing Surface	...	100 x 75		100 x 75				
	Number of Tarpaulins	...	two		two				
	Are wood fore and afters steel shod at all bearing surfaces?	...	Yes.		Yes.				
Are batten and wedges efficient and in good condition?	Are tarpaulins in good condition and in accordance with rule requirements?	...	Yes.		Yes.				
	Are lashings provided in accordance with rule requirements?	...	Yes. provisions made for additional lashings						

Particulars of fiddle, funnel and ventilator coamings:— Fiddle, funnel and ventilator coamings in efficient condition. Motor-oom skylight of steel strongly constructed and fitted with efficient hinged steel flaps.

Particulars of Flush Bunker Scuttles:— none fitted.

Particulars of Companionways:— on Raised quarter deck — in extension of casing: enhance to crew space; steel house, hinged steel non watertight doors opening 1350 x 600 sill 510 mm. operated from both sides. — on forecabin deck — steel companionway to crew space with steel hinged non watertight door in after side opening 1160 x 760 sill 600 mm. operated from both sides.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— on Raised quarter deck 1 vent 127 mm dia. coaming 900 x 10 mm to accommodation in R. Q. dk. in well on trunk aft. 1 vent 355 mm dia. coaming 1000 x 10 mm to hold. in well on trunk fore. 1 vent 355 mm dia. coaming 1000 x 10 mm to hold. on Forecabin deck 2 vents 127 mm dia. coaming 950 x 10 mm to enclosed forecabin. Wood planks and canvas covers supplied as required.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— on Raised quarter deck 2 air pipes 50 mm dia. 760 mm high. from afterpeak tank. in well 6 air pipes 50 mm dia. 915 mm high. from double bottom tanks. on Forecabin deck 1 air pipe 75 mm dia. 460 mm high. from forepeak tank.

Particulars of Gangway Cargo and Coaling Ports:— none fitted.

Particulars of Scuppers and Sanitary Discharge Pipes:— 3 scuppers from foreboard deck cut through stringer angle. Sanitary discharges from W.C.'s on raised quarter deck fitted below accommodation deck with cast steel chests and metal stormvalves at ship's side.

Particulars of Side Scuttles:— all side scuttles in forecabin and in raised quarter deck are substantially constructed and fitted with strong steel permanently attached deadlights.

Sill of lowest side scuttle 4.60 M above top of keel.

Particulars of Guard Rails:— on Raised quarter deck all open rail 1000 mm high with 3 rds and stanchions spaced 1450 mm apart. in forward portion steel bulwark 1000 mm high efficiently constructed and supported. in Well steel bulwarks 1200 mm high, efficiently constructed and supported by anglebar stanchions spaced 3 frames apart. on forecabin deck — open rail 970 mm high with 3 rds and stanchions spaced 1200 mm apart.

Particulars of Gangways, Lifelines, etc.:—

Suitable provision made for rigging lifelines in any part of the ship which might have to be used by the crew in the regular working of the vessel. — Sufficient material on board for the purpose.

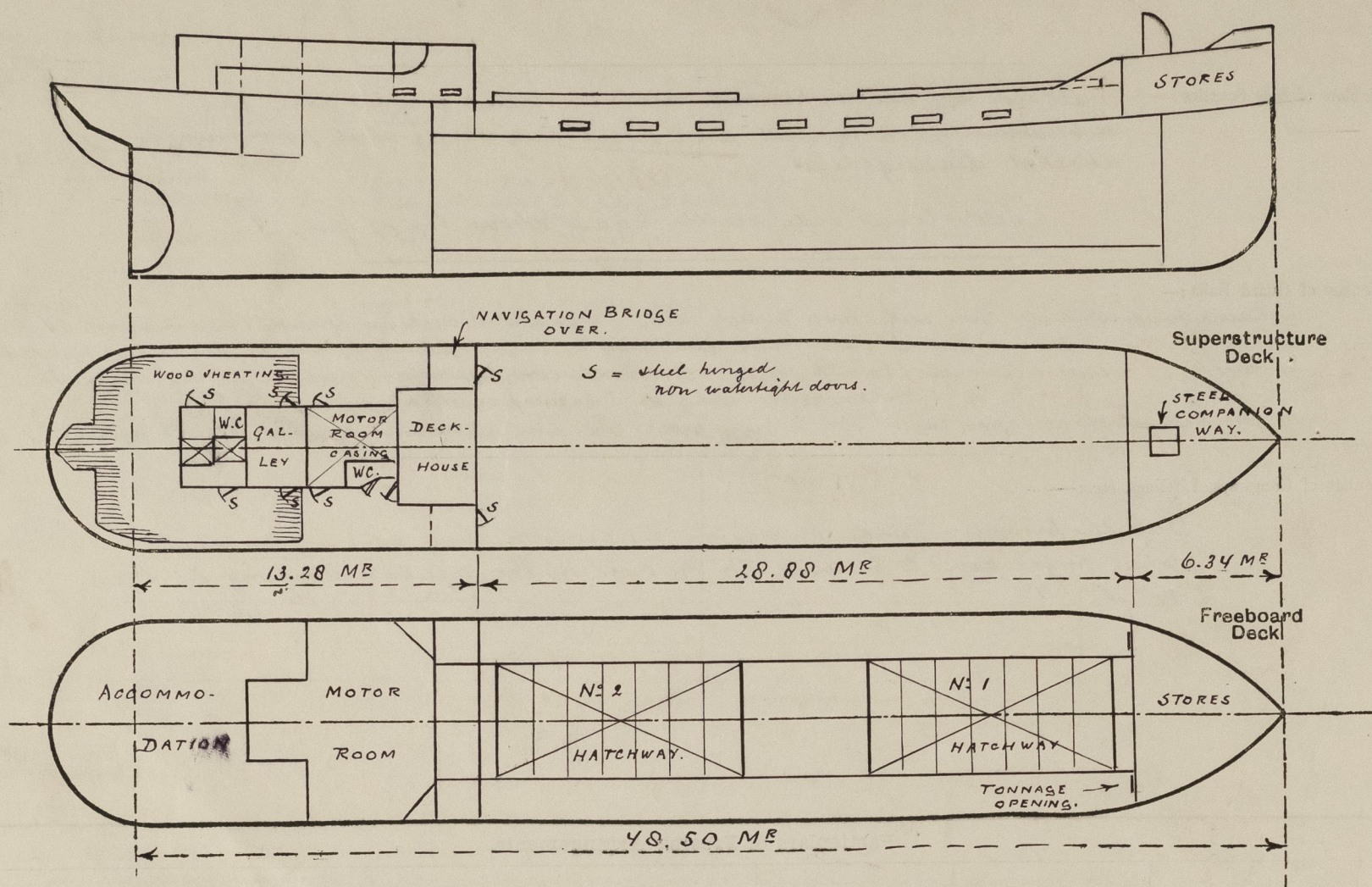
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	28.88 M ²	1.20 M ² <i>Thickness 7 mm</i>	4.75 x 0.21 M ² <i>659</i>	7	2.13 M ²	1.76 M ²
Forward Well						
State position of each freeing port (F. and A. position and height above deck edge) { After Well: — see sketch on page 4. Forward Well: — lower edge 210 mm above deck. State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: — none fitted. Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
Raised Quarter Deck Bulkhead		7 mm				none		1.13 M ²
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecabin Bulkhead	6 mm	5 mm	75 x 65 x 7.5	620	none	1240 x 930	600	2.13 M ²
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Raised Quarter Decks	7 mm	6 mm	75 x 75 x 7	700	hatched on top only	1400 x 600	500	2.13 M ²
Exposed Machinery Casings on Superstructure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	
Raised Quarter Deck Bulkhead	no openings
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecabin Bulkhead	Portable plates with hookbolts not passing thro' bulkhead.
Exposed Machinery Casings on Raised Quarter Decks	steel hinged non watertight doors operated from both sides.
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



The vessel has been built in accordance with the approved plans.—

State any special features in the construction of the ship:—

Particulars for Timber Freeboards.—

An outfit for timber deck cargoes is fitted on the freeboard deck. Strong angle sockets for uprights are riveted to the stringerplate and are spaced as required by the Regulations. Bulwark stanchions and rail fitted with holes to receive the lashings for the uprights. Overall lashings are fastened to strong eyeplates riveted to the sheerstrake. In connection with the overall lashings, stretching screws with sliphooks and lengths of long link chain are fitted enabling a quick release of the deck cargo; a handsteering gear is fitted on the R.Q. deck; centre girder of double bottom tanks fitted watertight all fore and aft. Enhances for crew on R.Q. deck and Forecastle.—

Draught in M.	Extreme displacement	Displacement per c.M.
3.20	953.54 M ³	3.44 M ³
3.10	919.26 M ³	3.416 M ³
3.00	885.21 M ³	3.394 M ³

Builder's name and yard number. N.V. Boele's Scheepswerf en Machinefabriek. Yardnumber 866

Names of sister ships. —

Owners. Rotterdamse Kustvaart Centrale.

Fee f 72.00 will be Received by me R. V. M. M.



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