

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

29 DEC 1932

Computation of Freeboard for Steamer, ~~Sailing Ship~~, Tanker

having COMPLETE SUPERSTRUCTURE DECK WITH
TUNNAGE OPENING AFT

Port of Survey ROTTERDAM

Date of Survey 22-12-1932

Name of Surveyor W. A. D. R.

Particulars of Classification 17100 A 1
SHELT. DECK WITH FREEB.
S.S. Reg. No. 3-3-27

Ship's Name KONSTANTINOS HADJIPATERAS Type of Superstructures EX. EX. EX. DEN OF ENNIE

Nationality and Port of Official Number DUTCH Registry ROTTERDAM Gross Tonnage 4684 Date of Build 1913-11

Moulded Dimensions: Length 118.30 M Breadth 16.41 Depth 8.699 M

Moulded displacement at moulded draught = 85 per cent. of moulded depth 10965 m³ tons

Coefficient of fineness for use with Tables 764

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>8.699</u>	(a) Where D is greater than Table depth (D-Table depth) R = <u>8.33 (8.710 - 7.886) 29.87 = + 205</u>	Moulded Breadth (B) <u>15.824</u>
Stringer plate <u>0.011</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>8.24</u>	Standard Round of Beam = $\frac{B \times 12}{50} = \underline{37.8}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <u>0.330</u>
Depth for Freeboard (D) = <u>8.710</u>		Difference <u>2 mm</u>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{2}{4} \times \frac{0.068}{1} = \underline{0.0017}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <u>37.58</u>	<u>10.80</u>	<u>10.80</u>	<u>2.438</u>		<u>10.80</u>
INCLUDING overhang <u>2.2</u>	<u>0.660</u>	<u>0.33</u>			<u>0.33</u>
R.Q.D. enclosed <u>0.66</u>					
" overhang <u>105.52</u>	<u>105.52</u>	<u>105.52</u>			<u>105.52</u>
Bridge enclosed <u>346.48</u>	<u>105.705</u>		<u>2.438</u>		
INCLUDING overhang aft <u>3.1</u>	<u>0.070</u>	<u>0.06</u>			<u>0.06</u>
" overhang forward <u>0.08</u>					
" cle enclosed <u>0.08</u>					
" overhang <u>0.08</u>					
Trunk aft <u>0.08</u>					
" forward <u>0.08</u>					
Tonnage opening aft <u>1.24</u>	<u>0.79</u>	<u>0.79</u>			<u>0.79</u>
" forward <u>0.08</u>					
Total <u>118.30</u>	<u>117.50</u>				<u>117.50</u>

Standard Height of Superstructure	<u>2253</u>
" " R.Q.D.	
Deduction for complete superstructure	<u>1046</u>
Percentage covered $\frac{S}{L} = 100\%$	<u>✓</u>
" " $\frac{S_1}{L} = 99.32\%$	<u>✓</u>
" " $\frac{E}{L} = 99.32\%$	<u>✓</u>
Percentage from Table, Line A.	<u>99.16</u>
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction =	<u>-1037</u>

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	<u>1239</u>	<u>1</u>	<u>1239</u>	<u>1498</u>	<u>1683</u>	<u>1</u>	<u>1683</u>
$\frac{1}{4}$ L from A.P.	<u>551</u>	<u>4</u>	<u>2204</u>	<u>607</u>	<u>748</u>	<u>4</u>	<u>2992</u>
$\frac{3}{8}$ L "	<u>137</u>	<u>2</u>	<u>274</u>	<u>152</u>	<u>187</u>	<u>2</u>	<u>374</u>
Amidships		<u>4</u>				<u>4</u>	
$\frac{3}{8}$ L from F.P.	<u>275</u>	<u>2</u>	<u>550</u>	<u>343</u>	<u>376</u>	<u>2</u>	<u>752</u>
$\frac{1}{4}$ L "	<u>1102</u>	<u>4</u>	<u>4408</u>	<u>1372</u>	<u>1504</u>	<u>4</u>	<u>6016</u>
F.P.	<u>2479</u>	<u>1</u>	<u>2479</u>	<u>3200</u>	<u>3385</u>	<u>1</u>	<u>3385</u>
Total			<u>11154</u>				<u>15202</u>

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L} \right) = \frac{4048}{18} \left(75 - \frac{50}{2} \right) = \underline{-56}$$

If limited on account of midship superstructure.

Mean actual sheer aft = Even
Mean standard sheer aft = EvenMean actual sheer forward = Even
Mean standard sheer forward = EvenLength of enclosed superstructure forward of amidships = C.S.S.
" " aft of " = Actual length of superstructure 2438
Standard " 2253
185

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 8.710

Summer freeboard = 940

Moulded draught (d) = 7.770

Deduction for Tropical freeboard and addition for Winter freeboard = 162 inches = 16 cms

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = \checkmark$

Tons per inch immersion at summer load water line

$T = 40$

Deduction = $\frac{\Delta}{40 T}$ inches = 16 cms

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	<u>764 + 680</u>	<u>1444</u>	
	<u>136</u>	<u>136</u>	
		<u>10.62</u>	
Depth Correction	<u>205</u>	<u>-</u>	
Deduction for superstructures	<u>-</u>	<u>1037</u>	
Sheer correction	<u>-</u>	<u>56</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>205</u>	<u>1093</u>	<u>-888</u>
			<u>940</u>

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

Tropical Fresh Water Line above Centre of Disc ...	<u>32.4</u>	<u>32 cms</u>	Tropical Fresh Water Freeboard ...	<u>61.6</u>	<u>62</u>
Fresh Water Line " " ...	<u>16.2</u>	<u>16</u>	Fresh Water " " ...	<u>77.8</u>	<u>78</u>
Tropical Line " " ...	<u>16.2</u>	<u>16</u>	Tropical " " ...	<u>77.8</u>	<u>78</u>
Winter Line below " " ...	<u>16.2</u>	<u>16</u>	Winter " " ...	<u>112.2</u>	<u>110</u>
Winter North Atlantic Line " " ...	<u> </u>	<u> </u>	Winter North Atlantic " " ...	<u> </u>	<u> </u>

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECK											
Description of Hatchway			SHELTER DECK				FREEBOARD DECK				
Dimensions of Hatchway			I	II	III	IV	I	II	III	IV	V
COAMINGS	Height above Deck	...	48"	54"	36"	50"	48"	40"	48"	54"	48"
	Thickness	...	40"	40"	36"	40"	40"	40"	40"	36"	40"
	Sides	...	—	—	—	—	—	—	—	—	—
	Stiffeners	...	—	—	—	—	—	—	—	—	—
HATCH BEAMS	Number	...	3	5	—	4	3	—	3	5	4
	Spacing	...	5'-0"	2'-6"	—	4'-0"	—	—	—	—	—
	Scantling and Sketch	...	2 1/2" x 3 1/2"	2 1/2" x 4"	—	2 1/2" x 3 1/2"	—	—	—	—	—
	Bearing Surface	...	3 1/2" ANGLE BAR	30°	—	—	—	—	—	—	—
FORE AND AFTERS	Number	...	—	—	—	—	—	—	—	—	—
	Spacing	...	—	—	—	—	—	—	—	—	—
	Unsupp'd Lengths	...	—	—	—	—	—	—	—	—	—
	Scantling and Sketch	...	—	—	—	—	—	—	—	—	—
HATCH COVERS	Material	...	3"	3"	2 3/4"	PINE	2 3/4"	3"	2 3/4"	—	—
	Thickness	...	—	—	—	—	—	—	—	—	—
	How fitted	...	—	—	—	—	—	—	—	—	—
	Bearing Surface	...	—	—	—	—	—	—	—	—	—
Spacing of Cleats			NOT EXCEEDING 24"								
Number of Tarpaulins			3								

Particulars of fiddle, funnel and ventilator coamings:— Top fiddle, funnel, engine room skylight, ventilation coamings and saddleback plates of an efficient construction and in good condition. Hatch covers have a complete battening down arrangement.

Particulars of Flush Bunker Scuttles:— None fitted.

Particulars of Companionways:— In strongly constructed steel deckhouse, 32', giving access to crew's quarters. Ordinary hinged steel doors, operated from 2 sides. Sills 18".

Particulars of Ventilators in exposed positions on freeboard and superstructure deck:— 14 Ventilators cargo holds. No. 10" coaming 48" x 40". 2 " crew's space 30" x 36". 2 " cargo holds 10" x 40" supported. Construction complies with Rules. Good plugs and canvas covers available.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure deck:— 1 on F.P. tank 5' x 10". 7 on D.B. " 2' x 26". Good plugs are available.

Particulars of Gangway Cargo and Coaling Ports:—

None fitted.

Particulars of Scuppers and Sanitary Discharge Pipes:—

All sanitary discharge pipes lead from spaces situated above the freeboard deck and are fitted with non return valves on the ship's side. Shelter deck fixed with gunmetal non return valves. Also the tannagwell, see sketch.

Particulars of Side Scuttles:—

In forward and after part of 'tween deck, of a substantial construction and fitted with hinged steel deadlights.

Particulars of Guard Rails:—

Round shell deck 3 rods through riveted stanchions (bolted to riveted L lugs). 44" x 5'-0". Amships plain bulwark, forms no well. freeing port. H = 3'-6"

Particulars of Gangways, Lifelines, etc.:—

Steel wire and Mamilla lifelines are available and it is a practice to fit same in rough weather on fore and after part of shelter deck. Eye plates and stretching screws are available.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Damage After Well	4'-1"	full height	23" x 23"	1	3.4 sq ft	✓
Forward Well						

State position of each freeing port ... After Well:—
(P. and A. position and height above deck edge) Forward Well:—
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—
Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

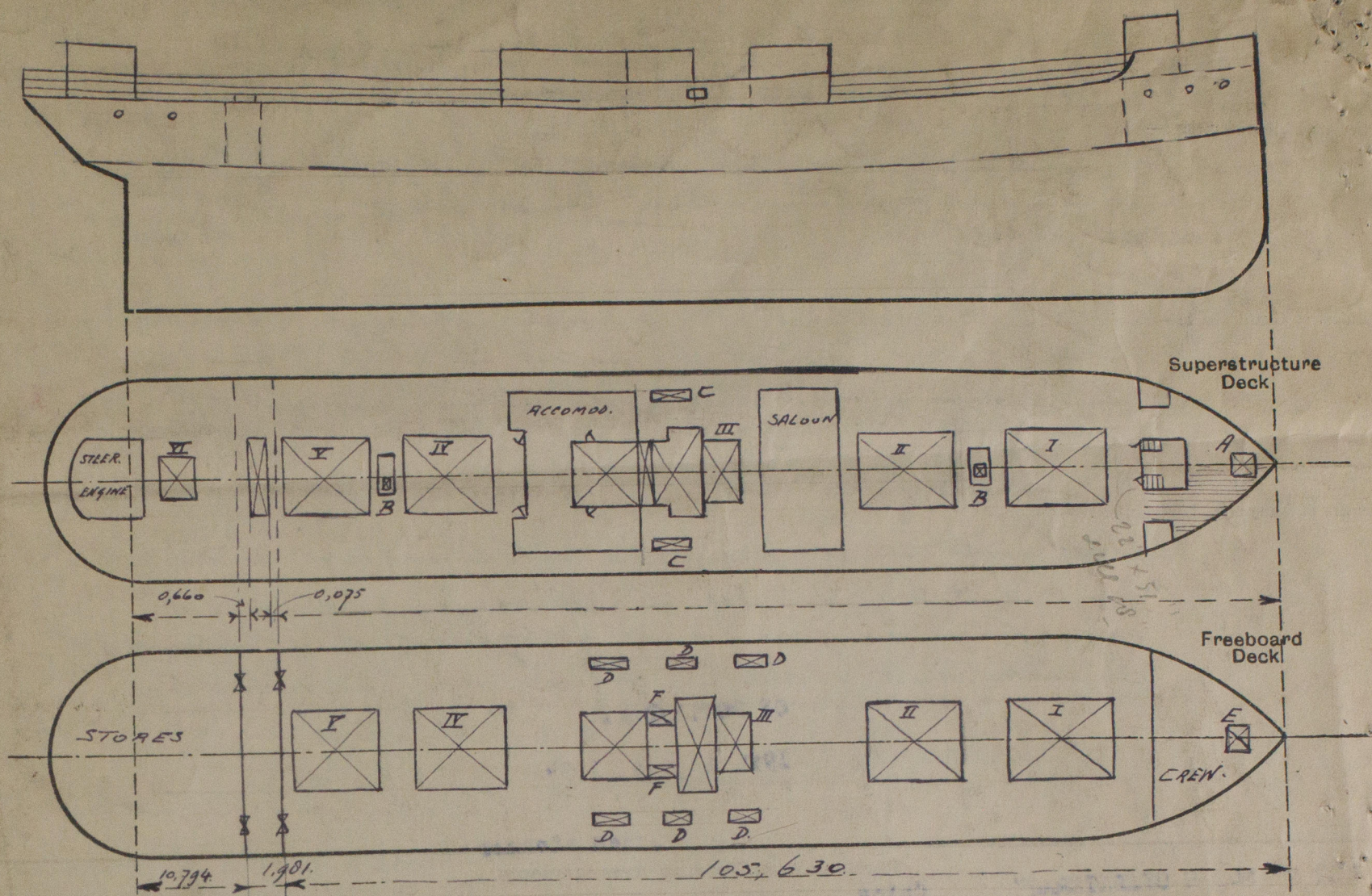
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	—	24"	4 1/2" x 3 x 26"	30"	✓	2' 4" x 3'-1"	18"	
Raised Quarter Deck Bulkhead	✓	—	—	—	—	—	—	
Bridge, After Bulkhead	—	26"	4 1/2" x 3 x 26"	30"	✓	2' 4" x 3'-1"	18"	
Bridge, Forward Bulkhead	✓	—	—	—	—	—	—	
Forecastle Bulkhead	✓	—	—	—	—	—	—	
Trunk, Aft	✓	—	—	—	—	—	—	
Trunk, Forward	✓	—	—	—	—	—	—	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓	—	—	—	—	—	—	
Exposed Machinery Casings on Superstructure Decks	22" x 40"	36"	4" x 3 x 40"	20"	✓	4'-3" x 1'-10"	18"	7'-4"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	10" x 36"	30"	2"	20"	✓	2'-6" x 2'-0"	20"	
Deckhouses on Flush Deck Ships	✓	—	—	—	—	—	—	

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

Poop Bulkhead	3" Stormboards in riveted L over full height
Raised Quarter Deck Bulkhead	✓
Bridge, After Bulkhead	Portable plates on hook bolts, jamming ship plate only
Bridge, Forward Bulkhead	✓
Forecastle Bulkhead	✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓
Exposed Machinery Casings on Superstructure Decks	Ordinary hinged steel doors, operated from both sides
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Ordinary hinged steel doors, operated from both sides
Deckhouses on Flush Deck Ships	✓

W456-0222 (2/2)

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:—



- Hatch A. 3'9" x 3'0" Coaming 29" x 36" Complete battening down arrangement.
 2 Accmhatches B in steel warehouses.
 2'6" x 2'0" Coamings B.A. 9" x 3" x 42" Hinged steel w. t. covers, 6 toggles.
 2 Coalhatches C on shelterdeck 13'0" x 3'0"
 State any special features in the construction of the ship:—
 Coaming 30" x 40"
 6 Coalhatches D on shelterdecks
 4'0" x 2'10" Coamings 12" x 36"
 Deckhatch E 3'6" x 3'6" Coaming B.A. 9" x 3" x 42"
 F Damage of coalhatch through freeboarddeck. Sells 24" No means of closing

The freeboard survey has been carried out afloat.
 Escapehatches in freeboarddeck 12 Coamings and a
 complete battening down arrangement.

Damage opening aft fitted with efficient temporary covers.
 and tarpaulins.
 Coaming 12"

Builder's name and yard number

J. L. Thompson & Son Ltd. Sunderland.

Names of sister ships

Owners

N. V. Schepvaart Bk. Middelburg

Fee £

153.00

Will be Received by me

Rotterdam 28-12-1932

Expenses of 1.00.

H. van der Meel



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