

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, ~~Sailing Ship~~, Tanker
having Shelterdeck with tonnage opening.

Port of Survey Rotterdam

Date of Survey 11th + 12th of Dec. 1935

Name of Surveyor J. H. H. H. H.

Particulars of Classification +100A1
arriving with free.
11-29; 11-34

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<u>MOUNT PENTELIKON</u>	<u>Greek</u> <u>Piraeus</u>	<u>✓</u>	<u>10770</u> <u>obtained</u>	<u>6-1917</u>

Moulded Dimensions: Length 399.8 Breadth 51'8.17 Depth 27'6 to mainmast
Moulded displacement at moulded draught = 85 per cent. of moulded depth
Coefficient of fineness for use with Tables 784.788

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	27.5	(a) Where D is greater than Table depth (D-Table depth) R =	✓	Moulded Breadth (B)	51.17
Stringer plate	0.44	(27.54-26.66) × 3 = + 2.64	✓	Standard Round of Beam = $\frac{B \times 12}{50}$	12.28
Sheathing on exposed deck	✓	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	✓	Ship's Round of Beam <u>main</u>	13.2
T $\left(\frac{L-S}{L}\right) =$				Difference	1.22
Depth for Freeboard (D) =	27.54	If restricted by superstructures	✓	Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right)$	$\frac{1.22}{4} \times 0.066 = \text{Nil.}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	32.5	32.50	8'0 1/2"	-	32.50
" overhang	2.5	1.25			1.25
R.Q.D. enclosed					
" overhang					
Bridge enclosed	360.8	360.80	8'0 1/2"	-	360.80
" overhang aft					
" overhang forward					
E/cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft	4'0"	2.62	8'0 1/2"		2.62
" forward					
Total	399.8	397.17			397.17

Standard Height of Superstructure	7.498
" " R.Q.D.	
Deduction for complete superstructure	41.99
Percentage covered $\frac{S}{L} =$	100.00
" " $\frac{S_1}{L} =$	99.34
" " $\frac{E}{L} =$	99.34
Percentage from Table, Line A.	99.19
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 1/2 L (if required)	
Deduction =	41.99 × 99.19 = -41.65

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	49.98	1		49.98	65.00	71.53	1		71.53
1/4 L from A.P.	22.24	4		88.96	27.65	31.82	4		127.28
1/2 L	5.50	2		11.00	6.91	7.87	2		15.74
Amidships	-	4		-	-	-	4		-
3/4 L from F.P.	11.00	2		22.00	13.03	13.92	2		27.84
1/4 L	44.48	4		177.92	52.14	56.31	4		225.24
F.P.	99.96	1		99.96	120.00	126.53	1		126.53
Total				449.82	465.33	594.16			594.16

Mean actual sheer aft = Sum
Mean standard sheer aft = Sum

Mean actual sheer forward = Sum
Mean standard sheer forward = Sum

Length of enclosed superstructure forward of amidships = 2 C.S.S.
" " aft of " = 2 C.S.S.

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{144.34}{18} \left(\frac{75-50}{2} \right) = -2.00$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 27.54
Summer freeboard = 3.01277
Moulded draught (d) = 24.53

Deduction for Tropical freeboard and addition for Winter freeboard = 6.14 = 156.7

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Δ = 11378

Tons per inch immersion at summer load water line

T = 41.7

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

= 6.85 = 174.7

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient 788 784+68 = 1.4648

1.36 1.36

Depth Correction ... 2.64

Deduction for superstructures ... 41.65

Sheer correction ... 2.00

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

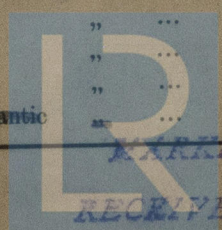
Summer Freeboard = 35.89 = 912.7

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

Tropical Fresh Water Line above Centre of Disc	32.9
Fresh Water Line	173
Tropical Line	156
Winter Line below	156
Winter North Atlantic Line	

Tropical Fresh Water Freeboard	588
Fresh Water	744
Tropical	761
Winter	1073
Winter North Atlantic	

17 DEC 1935



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W387-0182(1/2)

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	N°1	N°2	N°3	N°4	N°5	N°1	N°2	N°3	N°4	N°5
Dimensions of Hatchway	29'9" x 20'0"	31'10 1/2" x 20'0"	25'6" x 20'0"	31'10 1/2" x 20'0"	31'10 1/2" x 20'0"	29'9" x 20'0"	31'10 1/2" x 20'0"	25'6" x 20'0"	31'10 1/2" x 20'0"	31'10 1/2" x 20'0"
COAMINGS	Height above Deck	30"	for all hatchways				2'10 1/2" x 3'50"	for all hatchways		
	Thickness	.50								
	Sides	.40								
	Stiffeners									
HATCH BEAMS	Number	5	5	5	5	5	5	2	5	5
	Spacing	4'11 1/2"	5'3 3/4"	4'3"	5'3 3/4"	4'11 1/2"	5'3 3/4"	4'3"	5'3 3/4"	5'3 3/4"
	Scantling and Sketch	2 1/2" x 40	2 1/2" x 40	2 1/2" x 40	2 1/2" x 40	2 1/2" x 40	2 1/2" x 40	1 1/2" x 44	2 1/2" x 44	2 1/2" x 44
	Bearing Surface	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3	3	3	3
FORE AND AFTERS	Number									
	Spacing									
	Unsupported Lengths									
	Scantling and Sketch									
HATCH COVERS	Material	Pine	for all hatchways				Pine	for all hatchways		
	Thickness	3"					3"			
	How fitted	longitudinally					longitudinally			
	Bearing Surface	3" x 4"					3" x 4"			
Spacing of Cleats	24"	24"	24"	24"	24"	30"	30"	30"	30"	30"
Number of Tarpaulins	2	2	2	2	2	2	2	2	2	2

*Are wood fore and afters steel shod at all bearing surfaces? ☒
 Are battens and wedges efficient and in good condition? ☒
 Are tarpaulins in good condition and in accordance with rule requirements? ☒
 Are lashings provided in accordance with rule requirements? ☒

Particulars of fiddle, funnel and ventilator coamings:— *Stokehold gratings covered by strong hinged steel doors, fiddle, funnel, ventilator coamings in good condition. Engine room skylight of steel strongly constructed.*

Particulars of Flush Bunker Scuttles:— ☒

Particulars of Companionways:— *One companion way on Poop 6'10" x 6'5" x 3'0" of steel strongly constructed with 1 1/2" beam on 4'6" x 2'0" coaming 18" high. leading to crew space.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—
 6 Vent. 4" diam. Coamings 3" high to crew space
 4 " 7 1/2" " " 12" " " " all ventilators fitted with plugs and covers.
 6 " 5 1/2" " " 12" " " "
 10 " 24" " " 3'0" x 46" to Lotus
 10 " 22" " " 3'0" x 46" " "

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
 3 air pipes 3 1/2" 9-13 high to A.P. tanks
 4 " 2 1/2" 16-24 " " D.B. tanks all fitted with access plugs.
 2 " 3" 16-24 " " " "
 4 " 2" 16-24 " " " "
 1 " 4" 15" " " F.P. tank

Particulars of Gangway Cargo and Coaling Ports:— ☒

Particulars of Scuppers and Sanitary Discharge Pipes

*All soil pipes fitted with c.p.m. storm valves at vessel sides.
 6 scuppers on each side made of steel plates .50 thick with storm valves*

Particulars of Side Scuttles:

In gunpowder scupper scuttles fitted with deadweights.

Particulars of Guard Rails:—

Rails on Poop and Forecastle 3'3" high. Stanchions 4'9" apart 3 rails. Bulwark for full length amine ship strongly constructed.

Particulars of Gangways, Lifelines, etc.:—

Lifelines fitted for use of crew in the regular working of the ship.

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	6'6"	8'0 1/2"	24" x 18"	One	3 ft ²	<input checked="" type="checkbox"/>
Forward Well						

State position of each freeing port (F. and A. position and height above deck edge) { After Well:— 10 1/2" above steel deck.
 Forward Well:—
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— *Steel hinges, cover.*
 Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

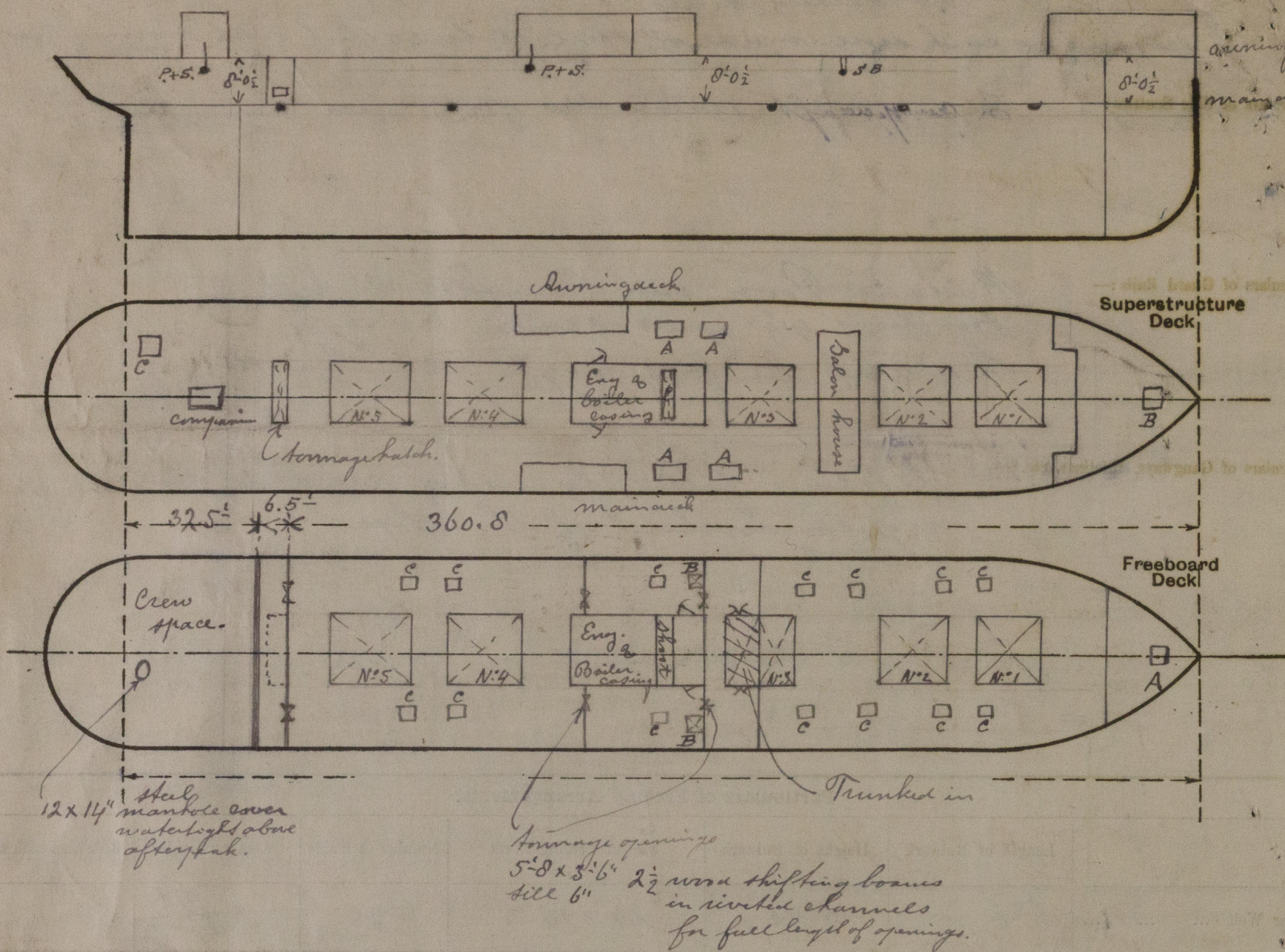
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	<input checked="" type="checkbox"/>	.32	3 1/2" flanges	5'0"	<input checked="" type="checkbox"/>	none	<input checked="" type="checkbox"/>	8'0 1/2"
Raised Quarter Deck Bulkhead	<input checked="" type="checkbox"/>	.26	L4 x 2 1/2 x .34	2'6"	<input checked="" type="checkbox"/>	6'0" x 3'0"	none	8'0 1/2"
Bridge, After Bulkhead	<input checked="" type="checkbox"/>							
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	18" x 42	.375	L4 x 3 x 40	3'0"	brackets on top	4'3" x 2'0"	18"	7'0"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	18" x	.375	L4 x 3 x 40	3'0"	"	4'3" x 2'0"	21"	
Deckhouses on Flush Deck Ships								

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

Poop Bulkhead	<i>none built!</i>	<i>none no opening</i>
Raised Quarter Deck Bulkhead		
Bridge, After Bulkhead	<i>none built!</i>	<i>wood oblique beams in vertical channel for full height of opening.</i>
Bridge, Forward Bulkhead		
Forecastle Bulkhead		
Exposed Machinery Casings on Freeboard or Raised Quarter Decks		
Exposed Machinery Casings on Superstructure Decks		
Machinery Casings within Superstructures not fitted with Class I Closing Appliances		
Deckhouses on Flush Deck Ships		

*Steel hinged door operated from both sides.
 Steel hinged door operated from both sides.*

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:—



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

Runing deck bunker hatch A 2 of 6'4" x 4'0" Coaming 30" x 42"
 2 of 6'1" x 3'10" " 30 x 42
 C Hatch on Triadley 17'0" x 7'6" " C 10x3 x 44
 all fitted with cleat battens and 3" wood covers and tarpaulines
 hatch B 3'2" x 4'0" Coaming C 9x3 x 40 cleats and battens and 3" covers.
 hatch C 2'6" x 2'6" " 12 x 32 " " " " " + 2 Tarps.

Main deck

Hatch A 3'2" x 4'0" Coaming C 9x3 x 40 cleats battens and covers 3"
 " B 4'2" x 4'3" " C 10 1/2 x 3 1/2 x 50 " " " "
 C Trimming hatches 24" x 24" " C 9 1/2 x 3 x 44 " " " "

The N°3 hatchway is for half length of hatch trunked plating .40"
 At sides 2 strong steel doors ^{Sills 13"} stiffeners 4'3" x .40 ± 3'6" distance
 hinges not w. tight. In trunked part
 are none webplates fitted and consequently
 no hatches

Builder's name and yard number Richardson Duck & Co Ltd Stockton

Names of sister ships

Owners Messrs. M Kulukundis Kethymnis & Kulukundis Ltd.

Fee 192.00. ^{nick} Received by me J. Verwerden



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