

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

23372

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having Running Deck

Port of Survey Newport, Mon.

Date of Survey 22nd Oct., 1934.

Name of Surveyor M. J. J. J.

Particulars of Classification SS. No. 3-11.29

Ship's Name MOUNT PENTELIKON (Type of Superstructures.)  
ex. ("ILLINOIS")

Nationality and Port of Registry Greek

Official Number 5791

Gross Tonnage 1917-6

Date of Build 1917-6

Moulded Dimensions: Length 399.8 Breadth 51.17 Depth 14.0 A.D. 35.6

Moulded displacement at moulded draught = 85 per cent. of moulded depth 14098 tons

Coefficient of fineness for use with Tables .798

Depth for Freeboard (D) 40.27

Moulded depth ... 40.27

Stringer plate ... 4.3

Sheathing on exposed deck 32.5

$T \left( \frac{L-S}{L} \right) = .25 \times \frac{35.6}{399.8} = .02$

Depth for Freeboard (D) = 35.60

Depth correction

(a) Where D is greater than Table depth  
(D - Table depth) R =  $(35.60 - 26.66) 3.00$   
= + 26.82"

(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) 51.17

Standard Round of Beam =  $\frac{B \times 12}{50} = \frac{51.17 \times 12}{50} = 12.28$

Ship's Round of Beam = 12.62

Difference Excess .34"

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.34}{4} \times .9306 = -.08"$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>32.5</u>		<u>8.0</u>		
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	<u>344.0</u>		<u>8.0</u>		
" overhang aft ...					
" overhang forward ...	<u>27.75</u>		<u>7.5</u>		
Fore enclosed ...	<u>34.7</u>		<u>7.4</u>		
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<u>27.75</u>	<u>27.75</u>			<u>27.75</u>

Standard Height of Superstructure 7.498R.Q.D. ✓Deduction for complete superstructure 41.99"Percentage covered  $\frac{S}{L} = 6.94\%$ "  $\frac{S_1}{L} = 6.74\%$ "  $\frac{E}{L} = 6.94\%$ Percentage from Table, Line A. 3.47%  
(corrected for absence of forecastle (if required))Percentage from Table, Line B. good condition  
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = 41.99 × .0347 = 1.46"

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>49.98</u>	1		<u>49.98</u>	<u>5.5</u>	<u>65.00</u>	1		<u>65.00</u>
$\frac{1}{2}$ L from A.P. ...	<u>22.24</u>	4		<u>88.96</u>	<u>2.3</u>	<u>27.65</u>	4		<u>110.60</u>
$\frac{2}{3}$ L " ...	<u>5.50</u>	2		<u>11.00</u>	<u>6.7</u>	<u>6.91</u>	2		<u>13.82</u>
Amidships ...	<u>✓</u>	4		<u>✓</u>	<u>✓</u>	<u>✓</u>	4		<u>✓</u>
$\frac{2}{3}$ L from F.P. ...	<u>11.00</u>	2		<u>22.00</u>	<u>1.1</u>	<u>13.03</u>	2		<u>26.06</u>
$\frac{1}{2}$ L " ...	<u>44.48</u>	4		<u>177.92</u>	<u>4.8</u>	<u>52.14</u>	4		<u>208.56</u>
F.P. ...	<u>99.96</u>	1		<u>99.96</u>	<u>10.0</u>	<u>120.00</u>	1		<u>120.00</u>
Total ...				<u>449.82</u>					<u>544.04</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{94.22}{18} \left( \frac{75-.0347}{2} \right) = -3.74"$ If limited on account of midship superstructure. YesIf 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 = 35.58Summer freeboard = 9.73Moulded draught (d) = 25.85

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 6.46 = 6.2Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 12071$ 

Tons per inch immersion at summer load water line

T = 41.83Deduction =  $\frac{\Delta}{40T}$  inches=  $\frac{12071}{40 \times 41.83} = 7.21" = 7\frac{1}{4}"$ 

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

71.43

77.63

+ -

26.82

- 1.46

- .08

- .24

14.08

40.90

178

+ 39.12

Summer Freeboard = 116.75SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Steel DeckTropical Fresh Water Line above Centre of Disc 34.9Fresh Water Line " 184Tropical Line " 165Winter Line below " 165Winter North Atlantic Line " ✓Tropical Fresh Water Freeboard ... 34.9Fresh Water " 27.8Tropical " 28.0Winter " 31.2Winter North Atlantic " ✓



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway		N <sup>o</sup> 1.	N <sup>o</sup> 2.	N <sup>o</sup> 3.	N <sup>o</sup> 4.	N <sup>o</sup> 5.				
Dimensions of Hatchway		29' 9"	31' 10 1/2"	25' 6"	31' 10 1/2"	31' 10 1/2"				
COAMINGS	Height above Deck	30	30	30	30	30				
	Thickness	5	5	5	5	5				
	Sides	4	4	4	4	4				
	Stiffeners	✓	✓	✓	✓	✓				
HATCH BEAMS	Number	5	5	5	5	5				
	Spacing	4' 11 1/2"	5' 3 3/4"	4' 3"	5' 3 3/4"	5' 3 3/4"				
	Scantling and Sketch	25' 21"	27' 23"	20' 18"	27' 23"	27' 23"				
	Bearing Surface	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"				
FORE AND AFTERS	Number									
	Spacing									
	Unsupported Lengths									
	Scantling and Sketch									
HATCH COVERS	Material	W.P.	W.P.	W.P.	W.P.	W.P.				
	Thickness	3"	3"	3"	3"	3"				
	How fitted	F.A.	F.A.	F.A.	F.A.	F.A.				
	Bearing Surface	3' 8 1/2" x 4'	3' 8 1/2" x 4'	3' 8 1/2" x 4'	3' 8 1/2" x 4'	3' 8 1/2" x 4'				
Spacing of Cleats		24"	24"	24"	24"	24"				
Number of Tarpaulins		2	2	2	2	2				

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

Particulars of fiddle, funnel and ventilator coamings:— *Oilahold gratings covered by strong lined steel doors, fiddle, funnel & ventilator coamings in good condition. Engine Room skylight of steel, strongly constructed.*

Particulars of Flush Bunker Scuttles:—

*Nil.*

Particulars of Companionways:— *One Companionway on Poop 6'10" x 6'5" x 3'0" of steel strongly constructed, with 1 1/2" teak door 4'6" x 2'0" coaming 18" high leading to Crews space.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

*6 vents 4" dia Coaming 8" high to Crews space.  
 4 " 7 1/2 " " 12 " " " "  
 6 " 5 1/2 " " 12 " " " "  
 10 " 24 " " 3'0" x 4'6" 10 Holds  
 10 " 22 " " 3'0" x 4'6" " " all vents fitted with Plugs & Covers*

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

*3 air pipes 3 1/2" dia 9-13 high to A.P. Tanks  
 4 " 2 1/2 " " 16.24 " " D.B. Tanks  
 2 " 3 " " 16.24 " " "  
 4 " 2 " " 16.24 " " "  
 1 " 4 " " 10 ships side in fore of F.P. Tank all fitted with wood Plugs*

Particulars of Gangway Cargo and Coaling Ports:—

*Nil.*

Particulars of Scuppers and Sanitary Discharge Pipes:—

*all soil pipes fitted with G.M. storm valves at vessel's sides.*

Particulars of Side Scuttles:—

*side scuttles fitted with dead lights.*

Particulars of Guard Rails:— *Rails on Poop and Fore 3'3" high stanchions 4'9" apart, 3 rails. Bulwarks for full length amidships strong & constructed.*

Particulars of Gangways, Lifelines, etc.:—

*None. 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 <i>A.M. DECK</i>	321' 3"	3' 5"	3' 6" x 1' 6"	9	47.25 <i>f</i>	
Forward Well	✓					27.9

State position of each freeing port ... After Well:—  
 (F. 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:— *shutters.*  
 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	✓	32	3 1/2" flange plates	3' 0"	nil	nil	✓	8' 0"
Raised Quarter Deck Bulkhead	✓							
Bridge, After Bulkhead	✓							
Bridge, Forward Bulkhead	✓	32	4' x 3' x 4'	2' 1"	nil	nil	nil	8' 0"
Forecastle Bulkhead	✓	30	3 1/2" flange plates	3' 2"	nil	4' 6" x 3' 0"	24"	7' 4"
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	5"	375	4' x 3' x 4'	3' 0"	Brackets on Top	4' 3" x 2' 0"	18"	7' 0"
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).

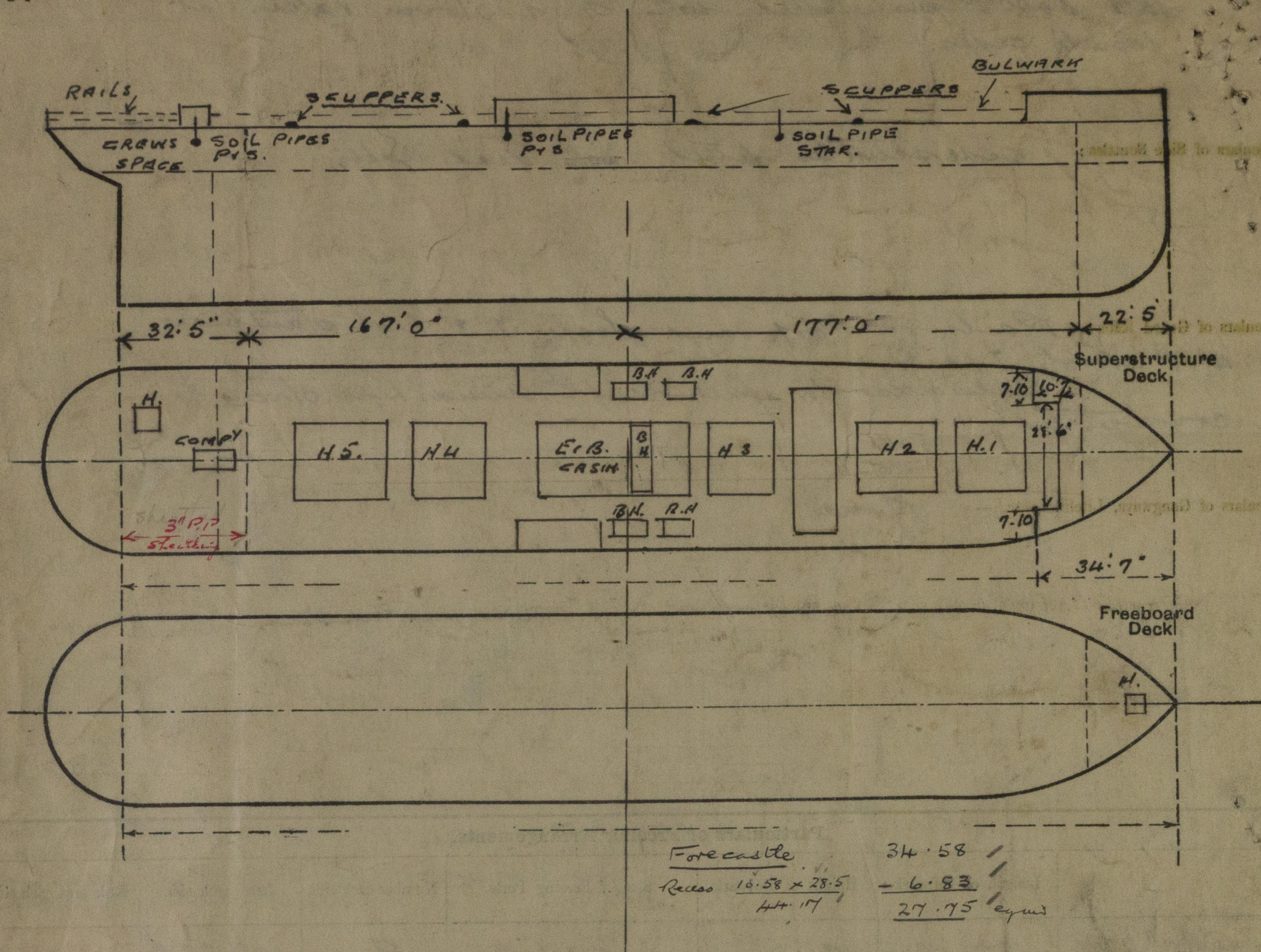
Poop Bulkhead	✓
Raised Quarter Deck Bulkhead	✓
Bridge, After Bulkhead	✓
Bridge, Forward Bulkhead	✓
Forecastle Bulkhead	✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓
Exposed Machinery Casings on Superstructure Decks	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓
Deckhouses on Flush Deck Ships	✓

*storm boards fitted for full height of opening in riveted steel hinged doors operated from either side.*

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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:— Vessel examined in dry dock for complete

special survey. 2<sup>nd</sup> S.S. H.I.  
 awing deck. Bulkhead Hatchways, — 2-6' 4" x 4' 0" Coaming 30' x 42'  
 2-6' 1" x 3' 10" 30' x 42'  
 Hatch on Deck, — 1-17' 0" x 7' 6" 10' BA x 44'  
 all Hatchways fitted with cleat battens, 3' hood covers and  
 2 Tarpsaulins.  
 one Hatch on Fore, — 4' 3" x 4' 3" Coaming 10' BA x 42'. 2 Tarps & Efficient Ballasting  
 arrangements.  
 on Prop., — 2' 6" x 2' 6" 12' x 32 B. plab "

Deadweight 6800 Tons at 22' 0" draught

"	7300	"	23' 0"	"
"	7800	"	24' 0"	"
"	8300	"	25' 0"	"
"	8875	"	26' 3"	"

No further information available.

Builder's name and yard number Messrs Richardson Durd & Co. Ltd.

Names of sister ships ✓

Owners Messrs Rethymnis & Kuluskundis Ltd.

Fee £16-0-0

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