

Lloyd's Register of Shipping. SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Poop - Bridge & Forecastle

Port of Survey Newcastle

(Type of Superstructures.)

Date of Survey 26th Sept. 1935

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<u>"Harmanteh"</u>	<u>British London</u>	<u>162723</u>	<u>5415</u>	<u>1932.6</u>

Name of Surveyor P. H. Rouse

Moulded Dimensions: Length 426.0 Breadth 56.0 Depth 28.75
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 12484 tons
 Coefficient of fineness for use with Tables .750

Particulars of Classification +100 A.1.

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Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth	(a) Where D is greater than Table depth (D - Table depth) R = <u>+1.17</u>	Moulded Breadth (B)
Stringer plate	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam =
Depth for Freeboard (D) =		Difference
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <u>-.03</u>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>40.66</u>				
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed... ..	<u>270.20</u>				
" overhang aft					
" overhang forward					
F'cle enclosed	<u>37.88</u>				
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total					

Standard Height of Superstructure 7.50
 " " R.Q.D. ✓
 Deduction for complete superstructure 42
 Percentage covered $\frac{S}{L} =$
 " " $\frac{S_1}{L} =$
 " " $\frac{E}{L} =$ 81.86
 Percentage from Table, Line A.
 (corrected for absence of forecastle (if required))
 Percentage from Table, Timber 77.1 88.66
 (corrected for absence of forecastle (if required))
 Interpolation for bridge less than 2L (if required) ✓
 Deduction = 42 x .8866 = -37.23

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.		1					1		
$\frac{1}{6}L$ from A.P.		4					4		
$\frac{2}{6}L$ "		2					2		
Amidships		4					4		
$\frac{2}{6}L$ from F.P.		2					2		
$\frac{1}{6}L$ "		4					4		
F.P.		1					1		
Total									

Mean actual sheer aft =
 Mean standard sheer aft =
 Mean actual sheer forward =
 Mean standard sheer forward =
 Length of enclosed superstructure forward of amidships =
 " " aft of " =

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Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ -2.22

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 = 28.79
 Summer freeboard = 3.79
 Moulded draught (d) = 25.00

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.25 = 6 1/4
 Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} = 8.33 = 8 1/4$

Deduction for Fresh Water.
 Displacement in salt water at summer load water line
 $\Delta =$ 12933
 Tons per inch immersion at summer load water line
 $T =$ 47.37
 Deduction = $\frac{\Delta}{40T}$ inches = 6.83 = 6 3/4

TABULAR FREEBOARD corrected for Flush Deck (if required)
 Correction for coefficient $\frac{.750 + .68}{1.36} = \frac{1.430}{1.36} =$

	+	-
Depth Correction	<u>1.17</u>	-
Deduction for superstructures	-	<u>37.23</u>
Sheer correction	-	<u>2.22</u>
Round of Beam correction	-	<u>.03</u>
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	-	-
	<u>1.17</u>	<u>39.48</u>

79.66
83.76

Summer Freeboard = 45.45

Timber SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:— 3'-9 1/2"

<u>Timber</u> Tropical Fresh Water Line above Centre of Disc	<u>17 1/2"</u>	<u>Timber</u> Tropical Fresh Water Freeboard	<u>2'-8 1/2"</u>
" Fresh Water Line " "	<u>11 1/4"</u>	" Fresh Water " "	<u>3'-2 3/4"</u>
" Tropical Line " "	<u>10 3/4"</u>	" Tropical " "	<u>3'-3 1/4"</u>
" Winter Line below " "	<u>3 3/4"</u>	" Winter " "	<u>4'-5 3/4"</u>
" Winter North Atlantic Line " "	<u>6 1/4"</u>	" Winter North Atlantic " "	<u>4'-8 1/4"</u>
" Summer above " "	<u>4 1/2"</u>		

-4 OCT 1935

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 MARKING FORM
 Lloyd's Register
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 W523-0198 1/2

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	...	...	...				
Dimensions of Hatchway	...	...	...				
COAMINGS	}	Height above Deck	...							
		Thickness	Sides	...						
			Ends	...						
		Stiffeners	...							
Brackets, Stays	...									
HATCH BEAMS	}	Number	...							
		Spacing	...							
		Scantling and Sketch	...							
FORE AND AFTERS	}	Number	...							
		Spacing	...							
		Unsupported Lengths	...							
			Scantling* and Sketch	...						
Bearing Surface	...									
HATCH COVERS	}	Material	...							
		Thickness	...							
		How fitted	...							
		Bearing Surface	...							
Spacing of Cleats	...	...	...				
Number of Tarpaulins	...	...	...				

*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 :—

Particulars of Flush Bunker Scuttles :—

Particulars of Companionways :—

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

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

Particulars of Gangway Cargo and Coaling Ports :—



Particulars of Scuppers and Sanitary Discharge Pipes :—

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Particulars of Side Scuttles :—

Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

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						
Forward Well						

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 :—
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 ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
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 ...								

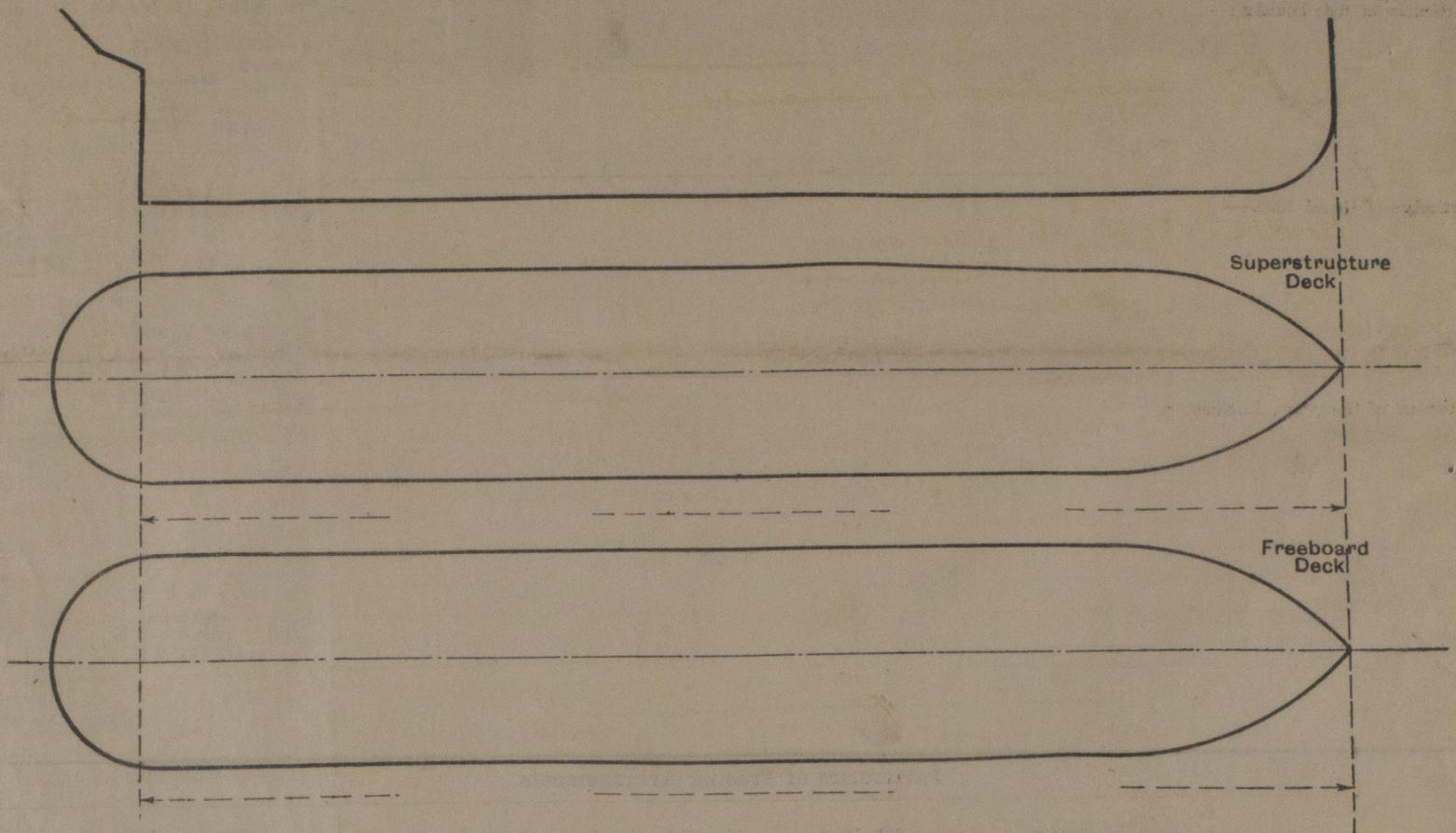
Particulars of Closing Appliances (state if capable of being manipulated from both sides):

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 ...	

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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 shown on the following sketches:—



State any special features in the construction of the ship:— Timber Assignment Required

- Rule 86 - Poop, bridge & fore fitted.
- Rule 88 - The centre girder is W.T. in No 2 & 5 O.B. tanks.
- Rule 89 - Bulwarks in wells 4'0" in height Rail 6" x 3" x 38 B.A.
Stanchions 7 1/2" x 36" B.P. spaced about 6'0" apart.
- Rule 90 - Steam steering gear is fitted in the poop space.
Relieving tackles led to poop winch.
- Rule 91 - Eye plates are fitted spaced not more than 10'0" apart.
No end eye is further than 5'6" from superstructure bulkhd.
In each well 3 eyes are riveted to the stringer plate
& 2 to the sheerstrake.
L channel sockets are fitted on each side - spaced 8' to 10'

The assignment is requested as early as possible as vessel will be sailing about the 3rd prox.

Builder's name and yard number Lithgows, Ltd. No 854
 Names of sister ships "Harmantek"
 Owners J. C. Harrison & Co. Ltd. (Mellis S.S. Co. Ltd)
 Fee £ 5 : 0 : 0 Received by me _____

It is further requested that the certificates will be forwarded with the assignment for issue when the markings have been verified.



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