

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **28987**
(For London Office only.)No **101604**

6 JAN 1933

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Having **Raised Quarter, Bridge + Forecastle Decks.**Port of Survey **Birkenhead.**(Type of Superstructures.) **AgT. 6/12/33.**Date of Survey **January 3rd 1933.**

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

T. P. TILLING.**British
Liverpool.****143645.****461⁴
456.****1920.6.**Name of Surveyor **T. Richardson.**Moulded Dimensions: Length **142.0** Breadth **25.0** Depth **12.6** **10.62**Moulded displacement at moulded draught = 85 per cent. of moulded depth **775** tonsCoefficient of fineness for use with Tables **719**Particulars of Classification *** 100.A.1.****S.S. Apl. No 2.29.**

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	12.50	(a) Where D is greater than Table depth (D - Table depth) R = $(12.50 - 9.47) \times 1.092 = + 3.34$		Moulded Breadth (B)	25.0
Stringer plate	R.Q.D. 34	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50} = 6$	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam = $6\frac{1}{4}$	
Depth for Freeboard (D) =	12.53			Difference	25
				Restricted to	17.53
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{25}{4} \left(1 - \frac{82.47}{142} \right) = 4.01$	

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...	86.6	86.50	3.0	3.00	79.12
" overhang ...	86.50			3.26	
Bridge enclosed ...	8.9	8.75	7.0		8.75
" overhang aft ...	8.75				
" overhang forward ...	1.0				
F'cle enclosed ...	21.40	21.40	6.9		21.40
" overhang ...	21.40	46			46
Trunk aft ...	93				
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	117.58	117.11			109.73

Standard Height of Superstructure	6.00
" " R.Q.D.	3.280
Deduction for complete superstructure	20.20
Percentage covered $\frac{S}{L} =$	82.80%
" " $\frac{S_1}{L} =$	82.47%
" " $\frac{E}{L} =$	77.27%
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	77.94%
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction = $20.20 \times 77.94\% =$	14.53

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	24.20	1		24.20	18"	18.00	1		18.00
$\frac{1}{4}$ L from A.P. ...	10.77	4		43.08	4"	2.25	4		9.00
$\frac{3}{4}$ L " ...	2.66	2		5.32	2"	2.75	2		5.50
Amidships ...	-	4		-	0	0	4		21.50
$\frac{3}{4}$ L from F.P. ...	5.32	2		10.64	8"	9.00	2		10.64
$\frac{1}{4}$ L " ...	21.54	4		86.16	28"	28.50	4		86.16
F.P. ...	48.40	1		48.40	62"	62.00	1		48.40
Total ...				217.80					166.70

Mean actual sheer aft = **Deficient 25.59%**
Mean standard sheer aft = **Deficient 25.59%**Mean actual sheer forward = **Excess 1**
Mean standard sheer forward = **Excess 1**Length of enclosed superstructure forward of amidships = **> .1L**
" " aft of " = **.50L**Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{217.80}{18} \left(.75 - \frac{51.10}{142} \right) = \frac{166.70}{18} \left(.75 - .35986 \right) = 4.95$

If limited on account of midship superstructure.

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 = **15.53** Ft.
 Summer freeboard = **3.37**
 Moulded draught (d) = **12.16**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **3.04 = 3"**

Addition for Winter North Atlantic Freeboard (if required) = **2" = 5"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 908$

Tons per inch immersion at summer load water line

T = **7.24**Deduction = $\frac{\Delta}{40T}$ inches= **3.14 = 3 $\frac{1}{4}$ "**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{719 + 68}{1.36} = \frac{1.399}{1.36}$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. ...

Summer Freeboard = **40.62**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :- **Raised Quarter**

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line " "

Tropical Line " "

Winter Line below " "

Winter North Atlantic Line " "

Tropical Fresh Water Freeboard ...

Fresh Water " "

Tropical " "

Winter " "

Winter North Atlantic " "

6 JAN 1933

MARKING FORM
27 JAN 1933
RECEIVED 23 JUN 1900MARKING FORM
RECEIVED 20 SEP 1933MARKING FORM
RECEIVED 12 JUN 1933Lloyd's Register
Foundation

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Description of Hatchway	Nº 1. FORE WELL.	Nº 2. R.Q.D.	COAL HATCH ON CASING TOP	
Dimensions of Hatchway	19' 11" x 13' 11"	23' 4" x 14' 11"	4' 3" x 12' 7"	
COAMINGS	Height above Deck ... 2' 6" Thickness { Sides ... 4 1/2" { Ends ... 5 1/2" Stiffeners ... 5 1/2" x 3 1/2" x 3/8" B.A. Brackets, Stays ...	3' 0" x 4' 6" See 4 1/2" x 3 1/2" x 3/8" B.A. 5 1/2" x 3 1/2" x 3/8" B.A. 20 9-33	3 1/2" 3 1/2" x 3" x 3/8" angle 3 1/2"	
HATCH BEAMS	Number ... 3 Spacing ... 5' 0" Scantling and Sketch ... Bearing Surface ... 3"	4' 8" Plate 16 1/2" - 12" x 3/8" angles 3" x 3" x 42"		
FORE AND AFTERS	Number ... Spacing ... Unsupported Lengths ... Scantling* and Sketch ... Bearing Surface ...			
HATCH COVERS	Material ... W. Wood Thickness ... 2 1/2" How fitted ... 3 x 2 Bearing Surface ... 2 1/2"	W. Wood 2 1/2" 3 x 2 2 1/2"	W. Wood 2 1/2" 3 x 2 2 1/2"	
Spacing of Cleats	22"	21"	25"	
Number of Tarpaulins	3	3	2	
*Are wood fore and afters steel shod at all bearing surfaces? none. 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? Iron Bands fitted				

Particulars of fiddley, funnel and ventilator coamings:—

Stokehold gratings covered by strong steel hinged covers.
 Funnel and fiddley ventilators in efficient condition.
 Engine skylight of wood, with steel coaming, strongly constructed.

Particulars of Flush Bunker Scuttles:—

2 Scuttles on R. Quarter Deck of cast steel, fitted with bayonet joints and grating. 20" diam.

Particulars of Companionways:—

Entrance to Bridge Accommodation, from Bridge Deck through Chart Room Stairway 4' 3" x 2' 0". P.P. Door 1 1/2 frames. 1" panels. 5' 3" x 1' 10". 3" steel. Door operated from both sides.

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

2 Vents on Forecastle Deck. 6" diam. Coamings 24" x 4" led to Crew Space.
 2 " G.N. " " 3" " 11" high to Chain Locker.
 1 Mush Vent " " 5" " 6" " W.C.
 2 Vents on " " 12" " Coamings 30" x 4" led to Hold.
 1 Mush Vent on Quarter " 12" " 36" x 4"
 1 Mush Vent on Bridge " 6" " 6" high to Accommodation

all Vents constructed in accordance with the Rules and coamings closed with wood plugs & canvas covers.

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

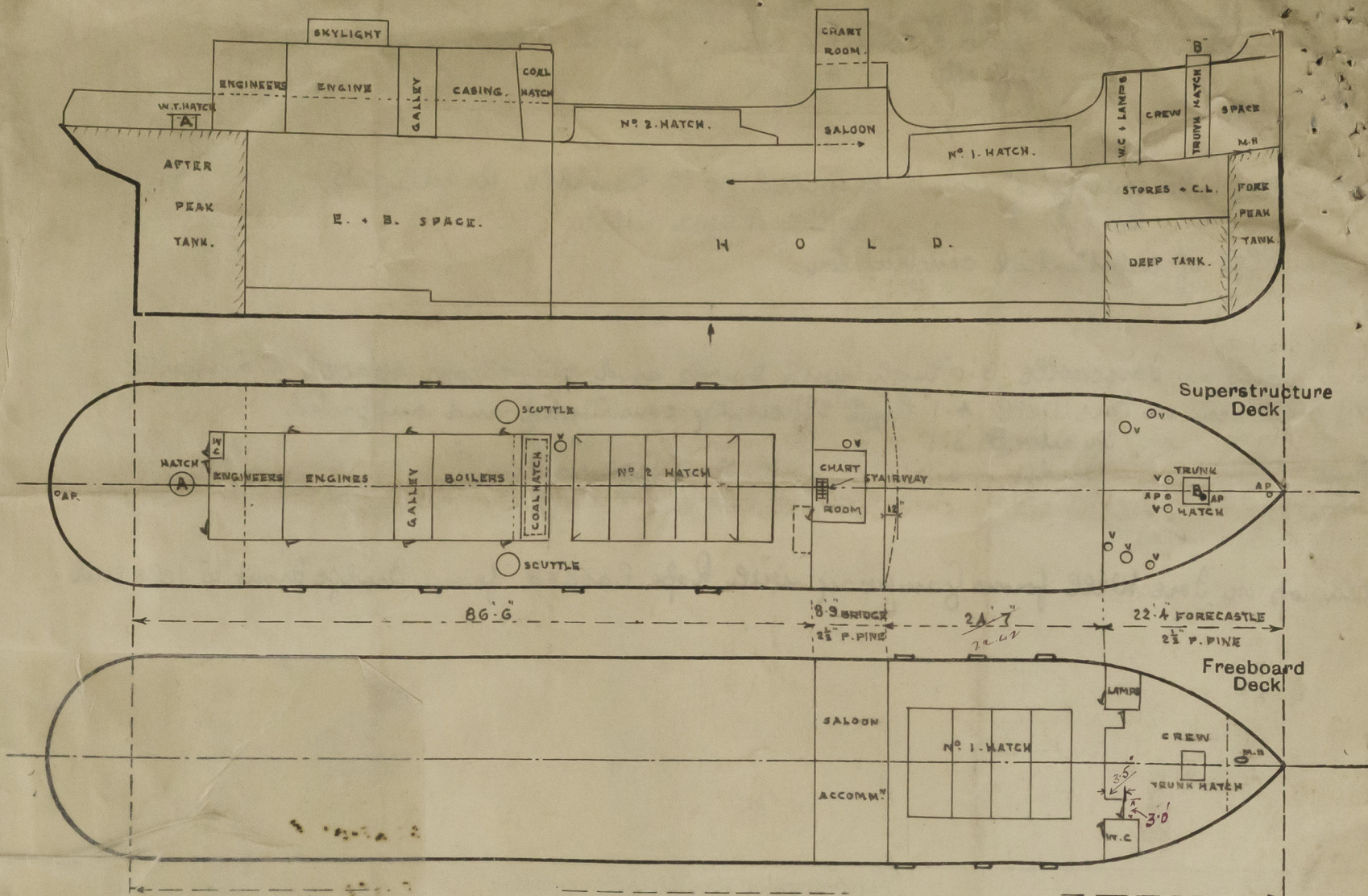
1. C.1. air pipe on Forecastle Deck. 9" high x 2" diam. from Fore Peak.
 1. C.1. " " " 12" " x 2" " " Deep Tank Forward.
 1. C.1. " " " 14" " x 3 1/2" " " (in Trunked Hatch).
 1. C.1. " " Quarter Deck aft 12" " x 1 1/2" " after Peak.
 Air Pipes closed with Canvas Covers.

Particulars of Gangway Cargo and Coaling Ports:—

None.



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:—



86.5
87.5
24.53
119.58
22.42
142.00

142.00
119.58
22.42
142.00

fore-castle =
3.5' x 5.0' x 2 =
22.5

22.33
93.04
21.40

WMT

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

Vessel surveyed afloat, for Freeboard only.
Timber Freeboard not required.

Builder's name and yard number *Messrs. J. Crickton & Co. Ltd. Saltney. Yard No. 294.*

Names of sister ships

Owners *Messrs. John S. Monks Ltd.*

Fee £ *5* : *2* : *0.*

Received by me



© 2020

Lloyd's Register
Foundation