

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

14 SEP 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *Raised Quarter Deck, Bridge & Forecastle.*Port of Survey *Newcastle on Tyne*

(Type of Superstructures.)

Date of Survey *12th Sept. 1932.*

Ship's Name

Nationality and Port of

Registry

Official Number

Gross Tonnage

Date of Build

*JOHN CHARRINGTON.**BRITISH**101268**1576.**1929-9.**LONDON.*Name of Surveyor *C. Stephenson*Moulded Dimensions: Length *249.7'* Breadth *37.25'* Depth *18.9 1/2'*Moulded displacement at moulded draught = 85 per cent. of moulded depth *3156* tonsCoefficient of fineness for use with Tables *.768*Particulars of Classification *100A.1.*

Depth for Freeboard (D)			Depth correction		Round of Beam correction	
Moulded depth	...	18.79	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	37.25'
Stringer plate04	(18.83 - 16.65) x 1.921 = + 4.19		Standard Round of Beam = $\frac{B \times 12}{50}$	8.94
Sheathing on exposed deck	...		2.18		Ship's Round of Beam	9
$T \left(\frac{L-S}{L} \right) =$			(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Difference	.06
Depth for Freeboard (D) =	18.83		If restricted by superstructures		Restricted to	
					Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{.06}{4} \left(1 - \frac{.3614}{11.986} \right) = \text{Nil}$

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 ...	134.08	134.08	4'-0"		134.08
" overhang ...					
Bridge enclosed ...	13.50	13.50	7'-0"		13.50
" overhang aft ...					
" overhang forward ...	25.81	25.81	7'-0"		25.81
Fore enclosed ...	27.94	25.81	7'-0"		25.81
" overhang ...	2.10	1.05			1.05
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...	175.49	174.44			174.44

Standard Height of Superstructure	6.00
" " R.Q.D.	3.998
Deduction for complete superstructure	30.97
Percentage covered $\frac{S}{L} =$	70.28
" " $\frac{S_1}{L} =$	69.86
" " $\frac{E}{L} =$	69.86
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	62.76
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction = 30.97 x .6276 =	- 19.44

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	34.97	1		34.97	34	34.00	1		34.00
1/2 L from A.P. ...	15.56	4		62.24	14 3/4	14.81	4		59.24
2/3 L " ...	3.85	2		7.70	3 3/4	3.70	2		7.40
Amidships ...		4		-	-	-	4		-
2/3 L from F.P. ...	7.69	2		15.38	8 1/2	8.69	2		17.38
1/2 L " ...	31.12	4		124.48	34 3/4	34.76	4		139.04
F.P. ...	69.94	1		69.94	78	78.00	1		78.00
Total ...				314.71					335.06

Mean actual sheer aft = *Deficient 9 1/2%*
Mean standard sheer aft =Mean actual sheer forward = *Excess*
Mean standard sheer forward =Length of enclosed superstructure forward of amidships = .091
" " aft of " = .50Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{314.71 - 335.06}{18} \left(\frac{.75 - .3514}{2} \right) = \frac{20.35}{18} (.75 - .3514) = .451$
If limited on account of midship superstructure. $\frac{.191}{.200} \times .451 = .43$
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 *R.Q.D.* Deck = *22.83* Ft.Summer freeboard = *5.56*Moulded draught (d) = *17.27*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *4.32* = *4 1/2*

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$

Tons per inch immersion at summer load water line

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

TABULAR FREEBOARD corrected for Fluct. Deck (if required)

Correction for coefficient

 $\frac{.768 + .68}{1.36} = \frac{1.448}{1.36}$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

32.24
34.33

+ -

4.19 -

- 19.44

- .43

- Nil

48.00

52.19 19.87 + 32.32

Summer Freeboard = 66.65

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Raised Quarter Deck*, Steel, Deck:

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 " " ...

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
		Upper Deck.		Raised Or. Dk.		Upper Dk.		R.O. Dk.	Casing Top	
Description of Hatchway	...	701.	702.	703.	704.	Inside 20 ft. to Peak.	Escape.	20 ft. to Peak.	Coal Hatch.	
Dimensions of Hatchway	...	29'3" x 24'9"-20'6"	31'6" x 25'0"	24'9" x 25'0"	24'9" x 25'0"-24'8"	2'9" x 2'3"	2 @ 4'1" x 2'3"	4'9" x 3'9"	4'6" x 22'0"	
COAMINGS	Height above Deck	39'	39'	45'	46'	32' x 3'	18 1/2'	19'	9' x 3 1/2'	
	Thickness	4 1/4"	4 1/4"	4 1/4"	4 1/4"	38'	38'	40'	3. a	
	Stiffeners	7 x 3 B.d.	7 x 3 B.d.	7 x 3 B.d.	7 x 3 B.d.					
	Brackets, Stays	3 @ 2 1/2" dia	3 @ 2 1/2" dia	3 @ 2 1/2" dia	3 @ 2 1/2" dia					
HATCH BEAMS	Number	4	4	3	3					
	Spacing	5'-10"	6'-3 1/2"	6'-2 1/4"	6'-2 1/4"					
	Scantling and Sketch	23'6" 15' x 40' angles	25'6" 18' x 40' angles	25'6" 18' x 40' angles	25'6" 18' x 40' angles					
		5' x 3 1/2" x 46'	5' x 3 1/2" x 54'	5' x 3 1/2" x 54'	5' x 3 1/2" x 54'					
	Bearing Surface	3 1/2"	3 1/2"	3 1/2"	3 1/2"					
FORE AND AFTERS	Number									
	Spacing									
	Unsupported Lengths									
	Scantling* and Sketch									
	Bearing Surface									
HATCH COVERS	Material	WP.	WP.	WP.	WP.	WP.	WP.	44 Steel	WP.	
	Thickness	3"	3 1/4"	3"	3"	2 1/2"	2 1/2"	Corner	2 1/2"	
	How fitted	F. & a.	F. & a.	F. & a.	F. & a.	T.	T.	70 ft. with	F. & a.	
	Bearing Surface	3'5" x 10'	3'5" x 10'	3'5" x 10'	3'5" x 10'	3'	2'	manhole.	2'4"	
Spacing of Cleats	...	20'6" 2 1/4"	22'6" 2 1/4"	24'	22'6" 2 1/4"	none	18"		23"	
Number of Tarpaulins	...	2.	2.	2.	2.	none.	2.		2.	
<p>*Are wood fore and afters steel shod at all bearing surfaces? <i>Yes.</i></p> <p>Are battens and wedges efficient and in good condition? <i>Yes.</i></p> <p>Are tarpaulins in good condition and in accordance with rule requirements? <i>Yes.</i></p> <p>Are lashings provided in accordance with rule requirements? <i>Yes.</i></p>										

Particulars of fiddle, funnel and ventilator coamings:— *Engine Room skylight of steel and of strong construction. Funnel and ventilators in efficient condition. Fiddle gratings fitted with steel hinged covers.*

Particulars of Flush Bunker Scuttles:—

none.

Particulars of Companionways:— *To Accommodation in Bridge space. In strong steel house: opening 4'6" x 2'0": 16" sill. 1 1/2" leak door. 1" panels. operated from both sides.*

To Engineers accommodation aft. In strong steel house. Opening 4'6" x 2'0": 17" sill. 1 1/2" leak framed door 1" panels. reinforced on inside by 1/2" leak secured to door frame. Operated from both sides.

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

On Forecastle deck. 4 @ 6" dia. 36" high. 38" to vent. 1 @ 12" 37" 38" to Hold.

On Bridge deck. 2 Gorse-neck vents 4 1/2" dia. 9" to mouth to accom. 2 mushroom " 6" 6" high with screw down W. 2. tops.

In Fore hold. deck. 1 @ 12" dia. 45" high. 38" to Hold.

On Raised deck between 1 & 2 hatchways. 2 @ 12" dia. 38" high. 38" to Holds. 3 & 4 " 2 @ 12" 36" 38" "

All bowl vents have wood plugs and canvas covers.

On Raised quarter deck. 1 @ 12" dia. 43" high. 38" to Hold. 1 @ 12" 37" 38" "

specially supported.

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

On Forecastle deck. 1 @ 5 1/2" dia. 10" to mouth to Fore peak.

" Raised deck between 1 & 2 hatches. 4 @ 3" dia. 10" to mouth to C. D. B.

On Bridge deck. 2 @ 5 1/2" dia. 12" to mouth. to Deep Tank. 1 @ 3" 9" " C. D. B.

On Raised quarter deck. 4 @ 3" dia. 27" to mouth to C. D. B.

On Top of after peak hatch. 1 @ 5 1/2" dia. 21" to mouth above deck to after peak.

Wood plugs attached to all air pipes

Particulars of Gangway Cargo and Coaling Ports:—

none.



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John Charrington

Particulars of Scuppers and Sanitary Discharge Pipes:—

5 W.C. discharges. (2 port. 3 starboard) discharge overboard with storm valves at shell ✓
see diagram on page 4 for positions ✓

Particulars of Side Scuttles:—

Sidelights to crew quarters in Forecastle space have strong hinged deadlights. ✓
" " officers " amidships " " " " " " ✓
" " Engineers " aft. " " " " " " ✓

~~2 glass in Forecastle space + 1 amidships broken.~~ ✓

Particulars of Guard Rails:—

on Forecastle deck. Rails 3'-0": 2 rods: stanchion 4'-6" apart. ✓
Bridge deck has steel bulwark 3'-6" high. ✓

Particulars of Gangways, Lifelines, etc.:—

none. ✓

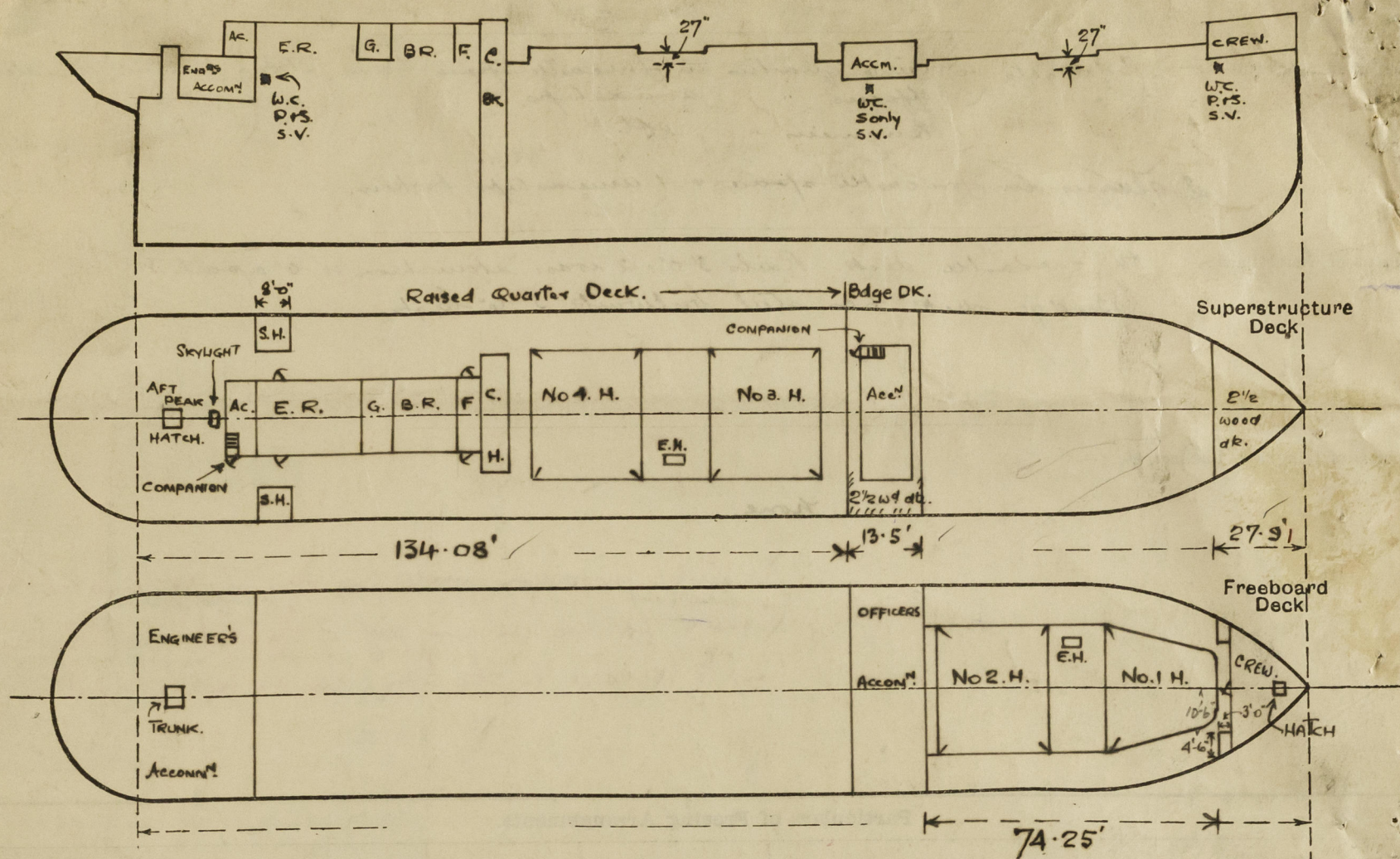
Suitable provision made for rigging lifelines which are available for use in any part of the ship which might have to be used by the crew in the regular working of the ship

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Raised or Deck?						
After Well ...	126.08'	3'-6"	4 @ 3'-3" x 1'-6 1/2" 1 @ 1'-8" x 1'-8" 1.67 x 1.67	5	22.79 sq	25.2 sq
Forward Well ...	74.25'	3'-6"	4 @ 3'-0 1/2" x 1'-6 1/2" 3.04 x 1.54	18.72 4.	18.72 sq	14.85 sq
State position of each freeing port ... After Well: from Bridge End Bulk. 6'-9": 31'-9": 56'-6": 81'-0": 106'-8": 10" above deck. (F. and A. position and height above deck edge) Forward Well: Forecastle Bulk. 14'-3": 32'-6": 49'-0": 66'-8": 11" " "						
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: open ports with 2 heavy metal rods.						
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 ...	✓	.34	3 x 3 x .34	28" x 30"	✓			4'-0"
Bridge, After Bulkhead34	3 x 3 x .34	28" x 30"	✓			3'-0"
Bridge, Forward Bulkhead ...	✓	.40	6 1/2 x 3 x .36 B.R.	24" x 30"	✓			7'-0"
Forecastle Bulkhead ...	✓	.25	3 x 3 x .30	36"	✓	4'-5" x 2'-0"	18"	7'-0"
Trunk, Aft ...	✓							
Trunk, Forward ...	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks36	.30	4 x 3 x .34	27"	Back at Top in S.R.	2 @ 4'-6" x 2'-0" 2 @ 4'-7" x 2'-1"	16 1/2" 20"	6'-11"
Exposed Machinery Casings on Super-structure 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 ...	✓ } no openings
Bridge, After Bulkhead ...	✓ }
Bridge, Forward Bulkhead ...	✓ } no openings.
Forecastle Bulkhead ...	1 1/2 Teak door, framed with 1" panels. operated from both sides. ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	2 ordinary steel hinged doors operated from both sides. ✓
Exposed Machinery Casings on Super-structure Decks ...	2 1 1/2 Teak doors, framed with 1" panels: reinforced by 1/2" teak board secured on inside: open both sides. ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	✓
Deckhouses on Flush Deck Ships ...	✓

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangways, 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:—

Skylight over Engineer's Accommodation.
On R. Q. deck. 3' 6" x 2' 6" x 1' 6" high. 36.
Leak wood top. 1 1/2" with hinged flap
Secured by screws & quadrant.
Cleats spaced. 4". Tarpaulin.

~~Wood hatch covers to escape hatches require to be repaired.~~

Vessel measured in dry dock while undergoing docking survey.

Builder's name and yard number

J. Brown Sons Ltd. Sunderland.

Names of sister ships

Owners

Charrington S. S. Co. Ltd

Fee £

9 : 7 : -

Received by me



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