

DISCLOSED SECTION No

Rpt. C.11.

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.

Index. No. 27085  
(For London Office only.)

362

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~  
having 1 Deck (steel)  
Poop, Bridge and Forecastle.  
(Type of Superstructures.)  
SHING-HO  
Ship's Name  
BARUNGA.  
Nationality and Port of Registry BRITISH AUCKLAND Tsingtao  
Official Number 142734 Gross Tonnage 4342 Date of Build 1918-10  
Port of Survey SYDNEY N.S.W.  
Date of Survey 17 & 26 October 1932  
Name of Surveyor Just. E. E. E. E.  
Particulars of Classification + 100 A. I.  
55 Syd. No. 2. 26

Moulded Dimensions: Length 379.66 Breadth 49.25 Depth 30'-1 1/2"  
Moulded displacement at moulded draught = 85 per cent. of moulded depth \_\_\_\_\_ tons  
Coefficient of fineness for use with Tables \_\_\_\_\_

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... ..	(a) Where D is greater than Table depth (D - Table depth) R =	Moulded Breadth (B)
Stringer plate ... <u>0.57"</u> ... ..	(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 = <u>12"</u>
Depth for Freeboard (D) =		Difference
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) =$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ... ..	<u>29'-6"</u>		<u>8'-0"</u>			Standard Height of Superstructure
" overhang ... ..						" " R.Q.D.
R.Q.D. enclosed ... ..						Deduction for complete superstructure
" overhang ... ..						Percentage covered $\frac{S}{L} =$
Bridge enclosed ... ..	<u>102'-0"</u>		<u>8'-0"</u>			" " $\frac{S_1}{L} =$
" overhang aft ... ..	<u>3'-0"</u>		<u>8'-0"</u>			" " $\frac{E}{L} =$
" overhang forward ... ..						Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Trunk enclosed ... ..	<u>40'-6"</u>		<u>8'-0"</u>			Percentage from Table, Line B. (corrected for absence of forecastle (if required))
" overhang ... ..						Interpolation for bridge less than 2L (if required)
Trunk aft ... ..						Deduction =
" forward ... ..						
Tonnage opening aft ... ..						
" " forward ... ..						
Total ... ..						

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ... ..		1					1			Mean actual shear aft =
1/8 L from A.P. ... ..		4					4			Mean standard shear aft =
2/8 L " ... ..		2					2			Mean actual shear forward =
Amidships ... ..		4					4			Mean standard shear forward =
3/8 L from F.P. ... ..		2					2			Length of enclosed superstructure forward of amidships =
1/8 L " ... ..		4					4			" " aft of " =
F.P. ... ..		1					1			
Total ... ..										

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

If limited on account of midship superstructure.

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

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b>  Depth to Freeboard Deck = <u>        </u> Ft. Summer freeboard = <u>        </u> Moulded draught (d) = <u>        </u>  Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>        </u> Addition for Winter North Atlantic Freeboard (if required) = <u>        </u>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line T = <u>        </u> Deduction = $\frac{\Delta}{40T}$ inches = <u>        </u>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient <table><tr><th></th><th>+</th><th>-</th></tr><tr><td>Depth Correction ... ..</td><td></td><td></td></tr><tr><td>Deduction for superstructures ... ..</td><td></td><td></td></tr><tr><td>Sheer correction ... ..</td><td></td><td></td></tr><tr><td>Round of Beam correction ... ..</td><td></td><td></td></tr><tr><td>Correction for Thickness of Deck amidships ... ..</td><td></td><td></td></tr><tr><td>Other corrections, scantlings, etc. ... ..</td><td></td><td></td></tr></table> Summer Freeboard = <u>        </u>		+	-	Depth Correction ... ..			Deduction for superstructures ... ..			Sheer correction ... ..			Round of Beam correction ... ..			Correction for Thickness of Deck amidships ... ..			Other corrections, scantlings, etc. ... ..		
	+	-																					
Depth Correction ... ..																							
Deduction for superstructures ... ..																							
Sheer correction ... ..																							
Round of Beam correction ... ..																							
Correction for Thickness of Deck amidships ... ..																							
Other corrections, scantlings, etc. ... ..																							

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

Tropical Fresh Water Line above Centre of Disc ... ..	Tropical Fresh Water Freeboard ... ..
Fresh Water Line " " ... ..	Fresh Water " " ... ..
Tropical Line " " ... ..	Tropical " " ... ..
Winter Line below " " ... ..	Winter " " ... ..
Winter North Atlantic Line " " ... ..	Winter North Atlantic " " ... ..

1908 Freeboard  
Meaning and as  
own request.



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
FREEBOARD DECK							SUPERSTRUCTURE DECK		
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
FORE AND AFTERS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling* and Sketch	...	...	...	...	...	...	...	...
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? *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:— On top of casings on Bridge Deck:—  
 Engine Room fitted with strong steel skylight.  
 Fiddle gratings fitted with steel storm covers permanently attached.  
 Funnel casing carried full height of funnel.  
 Ventilators of strong construction, well supported and passing through machinery casings.

Particulars of Flush Bunker Scuttles:—  
*None.*

Particulars of Companionways:—  
*None.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—  
 On Forecastle. 3-9" dia coamings 36" in height.  
 In Fore Well. 8-20" dia coamings 36" in height.  
 In After Well. 8-20" dia coamings 36" in height.  
 On Poop. 2-9" dia coamings 33" in height.  
 } all supplied with wood plugs and canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—  
 On forecastle and poop; air pipes of cast iron swan neck type, 3" dia, height 17" height to opening 1/2".  
 In wells: air pipes of mild steel swan neck type, 3" dia., height 4'-0", height to opening 3'-5".  
 all air pipes fitted with wood plugs.

Particulars of Gangway Cargo and Coaling Ports:—  
*None.*



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Particulars of Scuppers and Sanitary Discharge Pipes —

Scuppers from superstructure decks fitted with open bends discharging above freeboard deck.  
Sanitary discharges from deck houses on bridge deck each fitted with one bronze automatic storm valve discharging above freeboard deck.  
Sanitary discharges from forecastle and poop each fitted with one cast iron automatic storm valve; discharges from forecastle 4'-0" and from poop 2'-0" below freeboard deck.

Particulars of Side Scuttles:

In Forecastle: 9" dia side scuttles without deadlights.  
In Poop: 10" dia side scuttles with hinged cast iron deadlights.  
No side scuttles below freeboard deck.

Particulars of Guard Rails:—

On Superstructures: 3-bar rails 3'-4" in height.  
In Wells: Bulwarks 4'-4" in height.

Particulars of Gangways, Lifelines, etc.:—

Efficient life lines rigged in fore and after wells when required.

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 ... ..	119'-0"	4'-4"	34½" x 19"	6	27.3 sq. ft.	23.8 sq. ft.
Forward Well ... ..	88'-8"	4'-4"	34½" x 19"	4	18.2 sq. ft.	17.73 sq. ft.

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.

*Diagram showing freeing port positions and dimensions:*  
After Well: A 11'-0" x 16'-6" x 15'-6" x 16'-3" x 14'-9" x 10'-0" x 17'-9" F  
Forward Well: A 15'-0" x 14'-5" x 15'-3" x 16'-6" x 16'-0" F  
Hinged shutters and 3 horizontal bars.  
Ports varying from 9" to 15" above deck edge.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

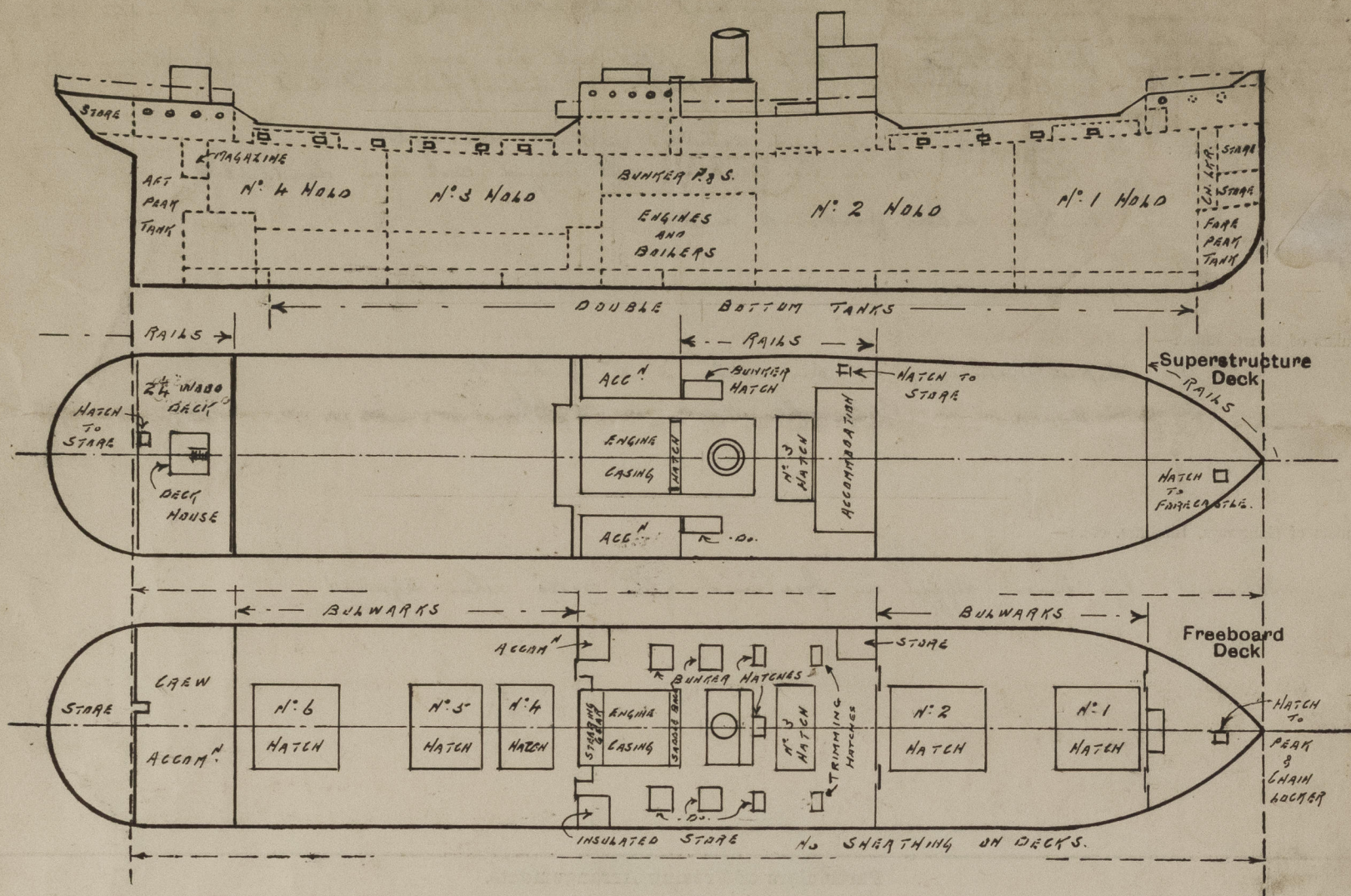
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	44'	38'	6 x 3½ x 5 L	30"	NONE.	NONE.	✓	8'-0"
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ... ..	44'	44'	4 x 3 x 38 L	31"	NONE.	4'-9" x 3'-0" p.s. 4'-9" x 3'-3" s.s.	23"	8'-0"
Bridge, Forward Bulkhead ... ..	44'	44'	8 x 3½ L	30"	BRACKETS TOP & BOTTOM.	5'-0" x 3'-6"	15"	8'-0"
Forecastle Bulkhead ... ..	38'	38'	4 x 3 x 38 L	30"	NONE.	4'-9" x 3'-3"	21½"	8'-0"
Trunk, Aft ... ..								
Trunk, Forward ... ..								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...								
Exposed Machinery Casings on Superstructure Decks ... ..	32'	25'	4 x 3 x 38 L	36"	BRACKETS AT TOP	5'-10" x 2'-0"	18"	7'-2"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	32'	28'	4 x 3 x 38 L	36"	NONE.	5'-2" x 2'-0"	18½"	8'-0"
SUPERSTRUCTURE Deckhouses on Main Deck, Ships ...	40'	25'	4 x 3 x 38 L	39"	BRACKETS AT TOP	5'-0" x 2'-4"	16"	7'-6½"

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

Poop Bulkhead ... ..	No openings.
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead ... ..	¾" shifting full height of opening boards on starboard side, hardwood door 1½" thick on port side, can be manipulated both sides.
Bridge, Forward Bulkhead ... ..	Hinged steel doors 38" thick with screw fastenings on outside.
Forecastle Bulkhead ... ..	¾" shifting boards in channels riveted to bulkhead, full height of opening.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	
Exposed Machinery Casings on Superstructure Decks ... ..	Hinged steel doors 32" thick. Can be manipulated from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	Hinged steel doors 32" thick. Can be manipulated from both sides.
SUPERSTRUCTURE Deckhouses on Main Deck, Ships ...	1½" framed wood doors. Can be manipulated 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:— Cargo vessel usually trading between Australian ports.

Now surveyed afloat in conjunction with port special survey.

#### Hatches on Superstructure Decks:

On Forecastle Deck -  $\frac{1}{2}$  fore peak:  $3'-0" \times 3'-0"$ . Coaming  $7\frac{1}{2}" \times 32$ . Bolted steel cover  $\frac{3}{8}"$  thick.

On Poop Deck. -  $\frac{1}{2}$  store:  $2'-6" \times 2'-6"$ . Coaming  $15" \times 32$ .  $2\frac{1}{2}"$  wood cover.  $2\frac{1}{2}"$  bearing surface. Cleats, battens & tarpaulins.

On Bridge Deck. -  $\frac{1}{2}$  store.  $2'-3" \times 1'-9"$ . Coaming  $10\frac{1}{2}" \times 44$ .  $2\frac{1}{2}"$  wood cover.  $2\frac{1}{2}"$  bearing surface. Cleats, battens & tarpaulins.

Bunker hatches (p.s.).  $11'-1" \times 3'-5"$ . Coaming  $18" \times 46$ .  $2\frac{1}{2}"$  wood hatches.  $2\frac{1}{2}"$  bearing surface. Cleats, battens & tarpaulins.

#### Hatches on Freeboard Deck.

In Forecastle. -  $\frac{1}{2}$  fore peak:  $3'-5" \times 3'-5"$ .  $3"$  angle coaming.  $2\frac{1}{2}"$  wood cover. No battening arrangements.

In Poop. -  $\frac{1}{2}$  magazine:  $3'-0" \times 2'-0"$ .  $3"$  wood coaming.  $2"$  wood cover.  $1\frac{1}{2}"$  bearing surface. No battening arrangements.

In Bridge. Trimming hatches (one each side)  $2'-6" \times 2'-0"$ . Coaming  $9" \times 38$ . Bolted steel covers  $\frac{3}{8}"$  thick.

Bunker hatches: One each side  $3'-8\frac{1}{2}" \times 2'-6\frac{1}{2}"$  } Coamings  $10\frac{1}{2}" \times 38$   
 Two each side  $6'-0" \times 4'-0"$  }  $2\frac{1}{2}"$  wood hatches with  $2\frac{1}{2}"$  bearing surface.  
 One at centre  $4'-0" \times 2'-6"$  } Fitted with cleats, battens and tarpaulins.

Builder's name and yard number Canadian Vickers Ltd. Montreal. Yard No. 64

Names of sister ships Baldina.

Owners The Adelaide Steamship Co. Ltd.

Fee £ 16 : 2 : 0

Received by me



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