

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.21 NOV 1932
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Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <u>Dunedin</u>	
having <u>Super Structure Deck, Freeboard deck + lower deck.</u>					Date of Survey <u>October 7, 1932</u>	
<u>poop 235' long - Forecastle 48' Houses on Superstructure deck.</u>					Name of Surveyor <u>N. J. Crawford</u>	
<u>and Boat deck above. (Type of Superstructures.)</u>					Particulars of Classification <u>+ 100 A1</u>	
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build		
<u>Waikouaiti.</u>	<u>British</u>	<u>143151</u>	<u>3926</u>	<u>1914-12</u>		
<u>(Ex RMgard.)</u>						
<u>Wellington</u>						
Moulded Dimensions: Length <u>360 B.P.</u> Breadth <u>49-11 1/2</u> Depth <u>26-2</u>						
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	(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 = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right)$ =

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					
„ overhang					
Bridge enclosed	<u>235</u>				
„ overhang aft					
„ overhang forward					
F'cle enclosed					
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total					

Standard Height of Superstructure _____
„ „ R.Q.D. _____
Deduction for complete superstructure _____
Percentage covered $\frac{S}{L} =$ _____
„ „ $\frac{S_1}{L} =$ _____
„ „ $\frac{E}{L} =$ _____
Percentage from Table, Line A.
(corrected for absence of forecastle (if required)) _____
Percentage from Table, Line B.
(corrected for absence of forecastle (if required)) _____
Interpolation for bridge less than 2L (if required) _____
Deduction = _____

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.		1					1		
$\frac{1}{8}L$ from A.P.		4					4		
$\frac{2}{8}L$ „		2					2		
Amidships		4					4		
$\frac{2}{8}L$ from F.P.		2					2		
$\frac{1}{8}L$ „		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 „ = _____

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 $1\frac{1}{2}$ ins. per 100 ft.

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

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck: — = 3' 8"Present
B.O.T.
143151

Tropical Fresh Water Line above Centre of Disc	
Fresh Water Line <u>3 1/2</u> „ „ „ „ „	
Tropical Line „ „ „ „ „	
Winter Line <u>4 1/2</u> below „ „ „ „ „	
Winter North Atlantic Line „ „ „ „ „	

Tropical Fresh Water Freeboard	
Fresh Water <u>3' 2 1/2</u> „ „ „ „ „	
Tropical „ „ „ „ „	
Winter <u>4' 0 1/2</u> „ „ „ „ „	
Winter North Atlantic „ „ „ „ „	

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	Freeboard dk.	Super S. Deck.	Boat dk.	Boat dk.	Boat dk.	Boat dk.	Boat dk.	Boat dk.	Boat dk.
Dimensions of Hatchway	23' 1" x 16' 5"	23' 1" x 16' 5"	23' 1" x 16' 5"	23' 1" x 16' 5"	23' 1" x 16' 5"	23' 1" x 16' 5"	23' 1" x 16' 5"	23' 1" x 16' 5"	23' 1" x 16' 5"
COAMINGS	Height above Deck ... 3' 8 1/2"	Height above Deck ... 3' 8 1/2"	Height above Deck ... 3' 8 1/2"	Height above Deck ... 3' 8 1/2"	Height above Deck ... 3' 8 1/2"	Height above Deck ... 3' 8 1/2"	Height above Deck ... 3' 8 1/2"	Height above Deck ... 3' 8 1/2"	Height above Deck ... 3' 8 1/2"
THICKNESS	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
STIFFENERS	10 x 3 1/2 L	10 x 3 1/2 L	10 x 3 1/2 L	10 x 3 1/2 L	10 x 3 1/2 L	10 x 3 1/2 L	10 x 3 1/2 L	10 x 3 1/2 L	10 x 3 1/2 L
BRACKETS	10' down	10' down	10' down	10' down	10' down	10' down	10' down	10' down	10' down
HATCH BEAMS	Number ... 5	Number ... 5	Number ... 5	Number ... 5	Number ... 5	Number ... 5	Number ... 5	Number ... 5	Number ... 5
SPACING	about 47 1/2"	about 47 1/2"	about 47 1/2"	about 47 1/2"	about 47 1/2"	about 47 1/2"	about 47 1/2"	about 47 1/2"	about 47 1/2"
SCANTLING AND SKETCH									
BEARING SURFACE	10' 2" x 3" Long tapered	10' 2" x 3" Long tapered	10' 2" x 3" Long tapered	10' 2" x 3" Long tapered	10' 2" x 3" Long tapered	10' 2" x 3" Long tapered	10' 2" x 3" Long tapered	10' 2" x 3" Long tapered	10' 2" x 3" Long tapered
FORE AND AFTERS	Number ...	Number ...	Number ...	Number ...	Number ...	Number ...	Number ...	Number ...	Number ...
SPACING	...	...	...	...	...	...	...	...	...
UNSUPPORTED LENGTHS	...	...	...	...	...	...	...	...	...
SCANTLING AND SKETCH	...	...	...	...	...	...	...	...	...
BEARING SURFACE	...	...	...	...	...	...	...	...	...
HATCH COVERS	Material ... Wood	Material ... Wood	Material ... Wood	Material ... Wood	Material ... Wood	Material ... Wood	Material ... Wood	Material ... Wood	Material ... Wood
THICKNESS	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"
HOW FITTED	Fore and aft covering 2	Fore and aft covering 2	Fore and aft covering 2	Fore and aft covering 2	Fore and aft covering 2	Fore and aft covering 2	Fore and aft covering 2	Fore and aft covering 2	Fore and aft covering 2
BEARING SURFACE	3" on hatch landing	3" on hatch landing	3" on hatch landing	3" on hatch landing	3" on hatch landing	3" on hatch landing	3" on hatch landing	3" on hatch landing	3" on hatch landing
SPACING OF CLEATS	18 1/2"	18 1/2"	18 1/2"	18 1/2"	18 1/2"	18 1/2"	18 1/2"	18 1/2"	18 1/2"
NUMBER OF TARPULINS	3	3	3	3	3	3	3	3	3

Particulars of fiddle, funnel and ventilator coamings:— Engine room, fiddle, funnel and stokehold casing coamings 14" above boat deck. Fiddle + funnel protected by trunk casing 12' 3" high at fore end, and 6' 6" at aft end, 4" plate. Storm doors over 3 fiddle gratings, wat side. Entrance to trunk casing thro steel door aft. 4' 10" x 1' 11" with 11" coaming. door hinged, with wedge cleats. Engine room skylight 22" above coamings. Galley skylight 12" above coaming. On boat deck.

Particulars of Flush Bunker Scuttles:— 5 scuttles on each side of superstructure deck, permanently jointed and bolted down, not in use. Scuttle to fore peak and chain locker on fore head 20" x 23" x 30 1/2" high, plate 5/8", fitted with hinged water tight door jointed and fitted with 4 screwed bolt cleats.

Particulars of Companionways:— One to after crews accommodation for of stores hatch, 6' 3" x 6' 3" high, coaming 11 1/2". Wood door 4' 9" x 2' 5". 2" door frame, 1" panel.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— Forecastle head. One 15" diam. coaming 11". Two 18" diam x 38" coaming. Six 12" diam 31" coaming. Three 8" diam 31" coaming. One 6" diam 18" coaming. Fore deck. Two 18" diam 37" coaming. Two 22" diam 9" 6" coaming. Plug + canvas covers for all ventilators. Superstructure dk. Two 20" diam 11" 6" coaming. One 8" diam 32" coaming. Two 22" diam 36" coaming. Four 8" diam 23" coam. Four 12" diam x 32" coaming. Tunnel Escape + Vent 27" x 24" 37" coaming. fitted with steel door fastened inside 18" vent on top.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— Forecastle head. Two. 13 1/2" high. One 37" high. One 18 1/2" high. Superstructure deck. Ten 18" high. Six 36" high. Two (aft) 18" high.

Particulars of Gangway Cargo and Coaling Ports:— Coaling port on each side above freeboard deck, hinged along bottom, bolted right round, size 34" x 28" x 16 1/2" above deck line. Ash shoot discharge centre 18" below load line, and water tight door in fiddle above superstructure deck.

Particulars of Scuppers and Sanitary Discharge Pipes — None from spaces below freeboard deck.

Particulars of Side Scuttles: None below freeboard deck.

Particulars of Guard Rails:— on superstructure deck. stanchions spaced 4' to 4' 6" — 4 1/2" height

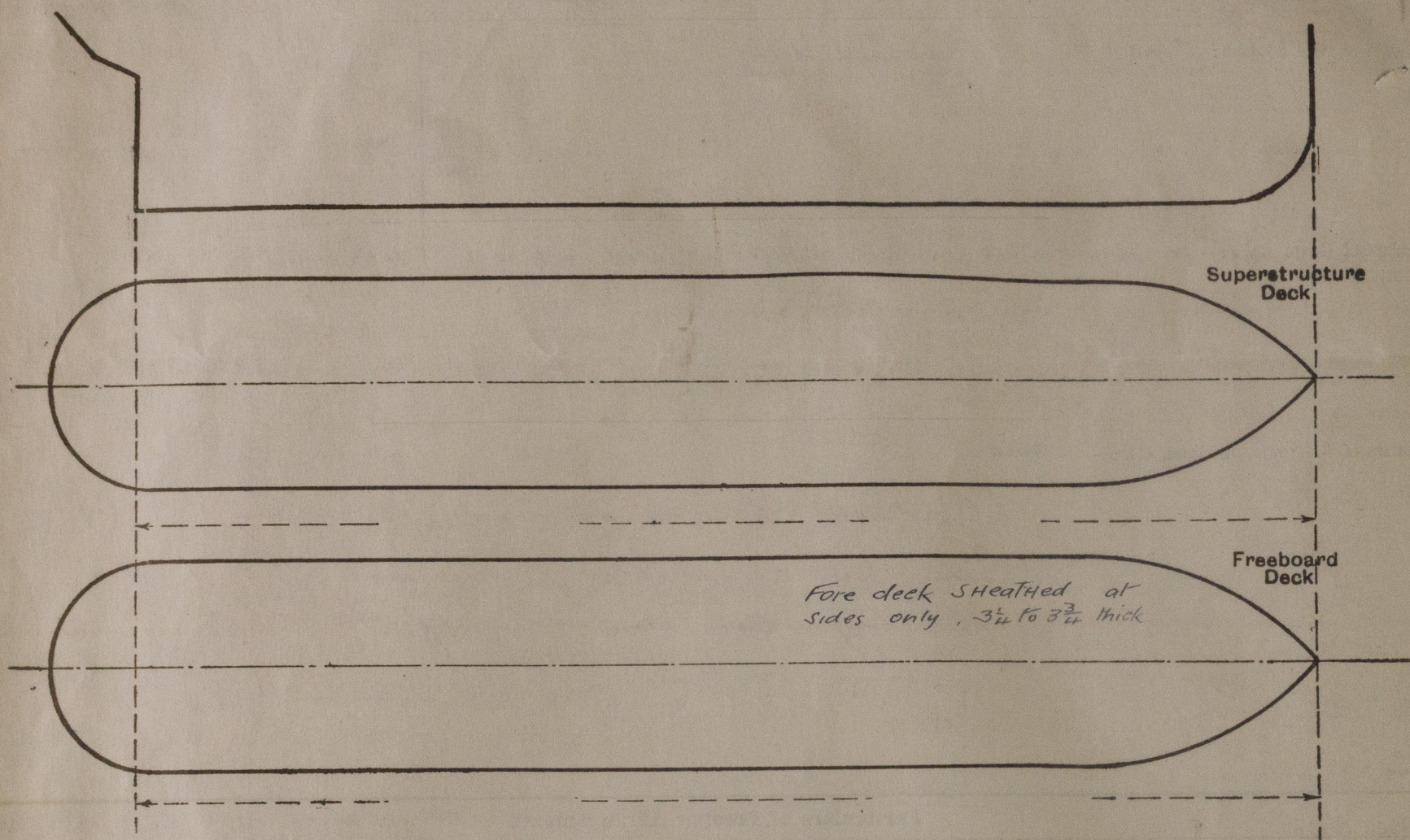
Particulars of Gangways, Lifelines, etc.:— *None*
Available provision made for rigging lifelines which are available for the use of the crew in the regular working of the ship.

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Superstructure deck After Well	Bulwarks in way of accommodation + abreast side houses aft. — Rails elsewhere.					
Forward Well	82' 6" Bhd to Bhd.	43"	35 1/2" x 18"	4	19.1 sq. ft.	
State position of each freeing port (F. and A. position and height above deck edge) { After Well: — Forward Well: — from fore Bulkhead to centre = 9' 3" — 31' 7" — 54' 3" — 76' 6" 13" height for 11" off.						
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: — Hinged shutters. For 1 Bar across. 11" off.						
Additional area where sheer is less than standard. { Mooring pipes in well. one 10 1/2" x 9" aft. — one 15 1/2" x 10" Fd. } ea. side						

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	21"	3/8"	9 x 1/2 B.A.	27"	18 x 20 Brackets	2 60 x 36	Coaming 21"	To super dk 7' 9"
Forecastle Bulkhead	None	5/16"	L 4 x 2 x 1/8"	about 30"	None	4' 11" x 2' 0"	16"	Dk to DK 6' 1"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Protected by cabins except fiddle openings 10' 6" Bhd to Bhd, and engine room alleyways 32 1/2" Bhd. to Bhd.							
Exposed Machinery Casings on Superstructure Decks	Fiddle. 14"	3/8"	3 1/2 x 3 and 28 Hds stl.	about 24"		6' x 23 1/2" stl. door 60 x 24, 1 1/2" peak door, 1" panels	14" coaming 15"	7' 8"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Engine. 15"	3/8"		32 1/2"				
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	Storm boards in riveted channels to full height.
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	Opening each side closed by 4 pine planks fitted in 1 slot with bolted 3" steel plate outside and wedge under tight.
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	

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:—

Superstructure deck, Freeboard or Upper deck, and Lower Deck.
 Cargo vessel usual trade between New Zealand & Australian ports
 Built in Otago Dock & afloat at Dunedin Wharf

Builder's name and yard number. ART. Ges. "Neptune" Rostock.

Names of sister ships

Owners Union Steam ship Co of N.Z.

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