

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, ~~Sailing Ship, Tug~~
having Poop and Forecastle.

(Type of Superstructures.)

Port of Survey Wellington.

Date of Survey 19th September, 1932.

Name of Surveyor *Samuel Blair*

Particulars of Classification +100 A.1.
S.S. Syd. No. 29

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"KIWITEA".	British. Wellington.	151507	2342.85	9/1925

Moulded Dimensions: Length 280'0" Breadth 44'1" Depth 21'1½"

Moulded displacement at moulded draught = 85 per cent. of moulded depth

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						Standard Height of Superstructure
" overhang						" " R.Q.D.
R.Q.D. enclosed						Deduction for complete superstructure
" overhang						Percentage covered $\frac{S}{L} =$
Bridge enclosed						" " $\frac{S_1}{L} =$
" overhang aft						" " $\frac{E}{L} =$
" overhang forward						Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Fore enclosed						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	Product	Actual Ordinate	Effective Ordinate	S	Product	
A.P.		1				1		Mean actual sheer aft =
¼L from A.P.		4				4		Mean standard sheer aft =
¾L "		2				2		Mean actual sheer forward =
Amidships		4				4		Mean standard sheer forward =
¾L from F.P.		2				2		Length of enclosed superstructure forward of amidships =
¼L "		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 1½ ins. per 100 ft.

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = Ft.
Summer freeboard =
Moulded draught (d) =

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =
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 = $\frac{\Delta}{40 T}$ inches

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction		
Deduction for superstructures		
Sheer correction		
Round of Beam correction		
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:—

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 " "

KIWITEA

Particulars of fiddle, funnel and ventilator coamings:— All on Casing Top which is 7'0" above Poop Deck.
One Fiddle Grating forward of Funnel. Fitted with hinged flaps.
Two circular gratings abreast of Funnel. Fitted with portable steel covers *attached by chain*.
Machinery Ventilators. Coamings about 7'0" above Casing Top.
Engine Room Skylight:— Fitted with hinged steel flaps. Sill 22" above Casing Top.

Particulars of Companionways :—

Particulars of Ventilators in exposed positions on freeboard and superstructure decks

Anulars of Ventilators in exposed positions on freeboard and superstructure decks				
<u>Forecastle:-</u>	Two 6" diam. Vents., caamings	33" high.		
	Three 9" " " "	30" " "		
	One 10" " " "	84" " above Trunk.	<i>specially supported</i>	
<u>In Well:-</u>	Four 15" " " "	36" " " "		
	Five 18" " " "	31" " " Deck.		All fitted
<u>Winch Houses:-</u>	Two 15" " " "	27" " " "		
<u>Poop:-</u>	Three 6" " " "	27" " " "		
	One 9" " " "	27" " " "		

All fitted with plugs and covers.

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

Forecastle:-	One	Air Pipe.	7 $\frac{1}{2}$ "	above	deck	to	mouth.
Well:-	Sixteen	" "	54"	"	"	"	"
On Trunk:-	Eight	" "	11"	"	trunk	"	"
poop:-	Seven	" "	7"	"	deck	"	"

wood plugs provided for closing

Particulars of Gangway, Cargo, and Coaling Ports :—

Particulars of Scuppers and Sanitary Discharge Pipes :—

Seamen's Lavatory Port side of Forecastle:- Discharge pipes led to 4" storm valve.

Finerone's and Stenon's :- Scupper pipe

Firemen's and Steward's Lavatories P & S
" " " " " " " " " " " "
:- Scupper pipe " " 2" " "
Sides of Poop:- Discharge pipes led to 4" storm valves P & S.
Scupper pipe " " 2" " " "

Particulars of Side Scuttles :—

In Poop:-	11" diameter clear opening.	20 off.	Fitted with hinged deadlights.
On Poop:-	11" " " "	14 off.	No deadlights.
Forecastle:-	11" diam. " " "	14 off.	Fitted with hinged deadlights.
Deckhouse:-	13" " " "	16 off.	No deadlights.

Particulars of Guard Rails :—

On Forecastle:- 41" high. Top Rail 1 $\frac{1}{2}$ " diam. Lower Rails (2) $\frac{7}{8}$ " diam. Stanchions 1 $\frac{1}{2}$ " to 1 $\frac{1}{2}$ "
Well:- Bulwarks 4'0" high. .25" plate. 6x3x.40 B.A. top rail. Stays 7x3x.40 B.A. spaced 60"
Bridge Deck:- Bulwarks round front to 5'2" along sides. 38" high., and open rails 38" high
Top Rail and Lower rail $\frac{1}{2}$ " diameter, Stanchions 1 $\frac{1}{2}$ " to 1 $\frac{1}{2}$ ".
Poop:- Open Rails 43" high. Top Rail 1 $\frac{1}{2}$ " diam., lower rails (2) $\frac{1}{2}$ " diam. Stanchions 1 $\frac{1}{2}$ " to 1 $\frac{1}{2}$ "
Bulwarks 43" high, 5/16" plate, 2x5x.25 B.A. on top.

Particulars of Gangways, Lifelines, etc. :—

Suitable provision is made for ageing
lifelines

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Starboard Well	170'6"	48"	35" x 23"	6	33.3 sq.ft	34 sq ft
Forward Well	-	-	-	-	-	-

State position of each freeing port } Starboard Well :- 0'0", 20'0", 44'0", 70'0", 100'0", 130'0" from ROOF Bulwark
(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 :- Two horizontal bars.

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 ... ..	.375	.375	8x3x.36 BA	30"	WLG TOP & BOTTOM 5 IN. EACH WAY.	5'1" x 3'7"	22"	7'6"
Raised Quarter Deck Bulkhead ...	-	-	-	-	-	-	-	-
Bridge, After Bulkhead	-	-	-	-	-	-	-	-
Bridge, Forward Bulkhead	-	-	-	-	-	-	-	-
Forecastle Bulkhead	-	5/16	2x3x5/16 OA	35"	None.	{ 1 @ 6'-0" x 4'-1" 2 @ 5'-0" x 2'-4" }	{ 4" ABOVE TRUNK 18" }	7'6"
Trunk, Aft	See sketch on page 4.							
Trunk, Forward	See sketch on page 4.							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	-	-	-	-	-	-	-	-
Exposed Machinery Casings on Superstructure Decks	5/8"	5/16	3x3x.25 OA	30"	{ 375 BKTS. 12 R. TOP ONLY. }	{ 2 @ 5'-5" x 27" 2 @ 5'-9" x 27" 2 @ 5'-9" x 23" }	{ 17" 19" 18" }	7'0"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	5/8"	5/16	3x3x.25 OA	30"	None.	2 @ 5'0" x 23"	17"	7'6"
Deckhouses on Flush Deck Ships ...	-	-	-	-	-	-	-	-

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

Poop Bulkhead	...	...	2 tonnage openings, with bolted plate having 5 butterfly screws $\frac{7}{8}$ " bolts at sides, 4 nuts and bolts top and bottom, $11\frac{1}{4}$ " pitch, Opens from outside only.
Forward Quarter Deck Bulkhead	...	-----	
Bridge, After Bulkhead	...	-----	
Bridge, Forward Bulkhead	...	-----	
Forecastle Bulkhead	...	...	One 6'0"x41" double steel doors and two 5'0"x24" steel doors. All, operable both sides.
Exposed Machinery Casings on Free-boards or Raised Quarter Decks	...	-----	
Exposed Machinery Casings on Superstructure Decks	...	...	4 steel doors 5/16" plate and 2 wood doors $1\frac{3}{4}$ " thick. All operable both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...	Two steel doors 5/16" plate. Operable both sides.
Deckhouses on Flush Deck Ships	...	-----	

2 Trim. Hatches in Poop.	Ditto on Poop	Hatch on Fo'c'sle	Fore Peak in Fo'c'sle	Chain Lkr. Hatch.	Access Hatches in Houses	Exposed Access Hatches.
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6'0"x4'6"	8'0"x3'0"	4'0"x2'6"	4'0"x3'0"	23 $\frac{1}{2}$ "x23 $\frac{1}{2}$ "	41 $\frac{1}{2}$ "x27"	23 $\frac{1}{2}$ "x17"
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9"	31 $\frac{1}{2}$ "	28"	8"	8"	9"	24 $\frac{1}{2}$ "
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$\frac{5}{8}$ BA	$\frac{3}{8}$	$\frac{5}{8}$	$\frac{5}{8}$ B.A.	$\frac{5}{8}$ B.A.	$\frac{3}{8}$	$\frac{5}{8}$
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$\frac{3}{8}$ BA	$\frac{3}{8}$	$\frac{5}{8}$	$\frac{5}{8}$ BA	$\frac{5}{8}$ B.A.	$\frac{3}{8}$	$\frac{5}{8}$
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-	-	-	-	-	-	-
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-	-	-	-	-	-	-
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Nil

Nil

Nil

Nil

Nil

Nil

Nil

Nil

Nil

Nil

Nil

Nil

Nil

Nil

Wood
2"
Thwart
2 $\frac{1}{2}$ "

27"

2"

Wood
2 $\frac{1}{4}$ "
Thwart
3"

21"

2

Wood
2 $\frac{1}{4}$ "
Thwart
3"

20"

2

Wood
2 $\frac{1}{4}$ "
Thwart
2 $\frac{1}{4}$ "

36"

2

Wood
2 $\frac{1}{4}$ "
Solid
2 $\frac{1}{4}$ "

15'

2

Wood
2 $\frac{1}{4}$ "
Thwart
2 $\frac{1}{4}$ "

30"

2

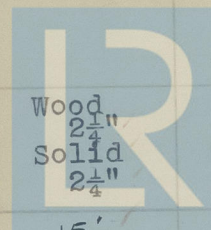
Wood
2 $\frac{1}{4}$ "
Solid
2 $\frac{1}{4}$ "

15"

2

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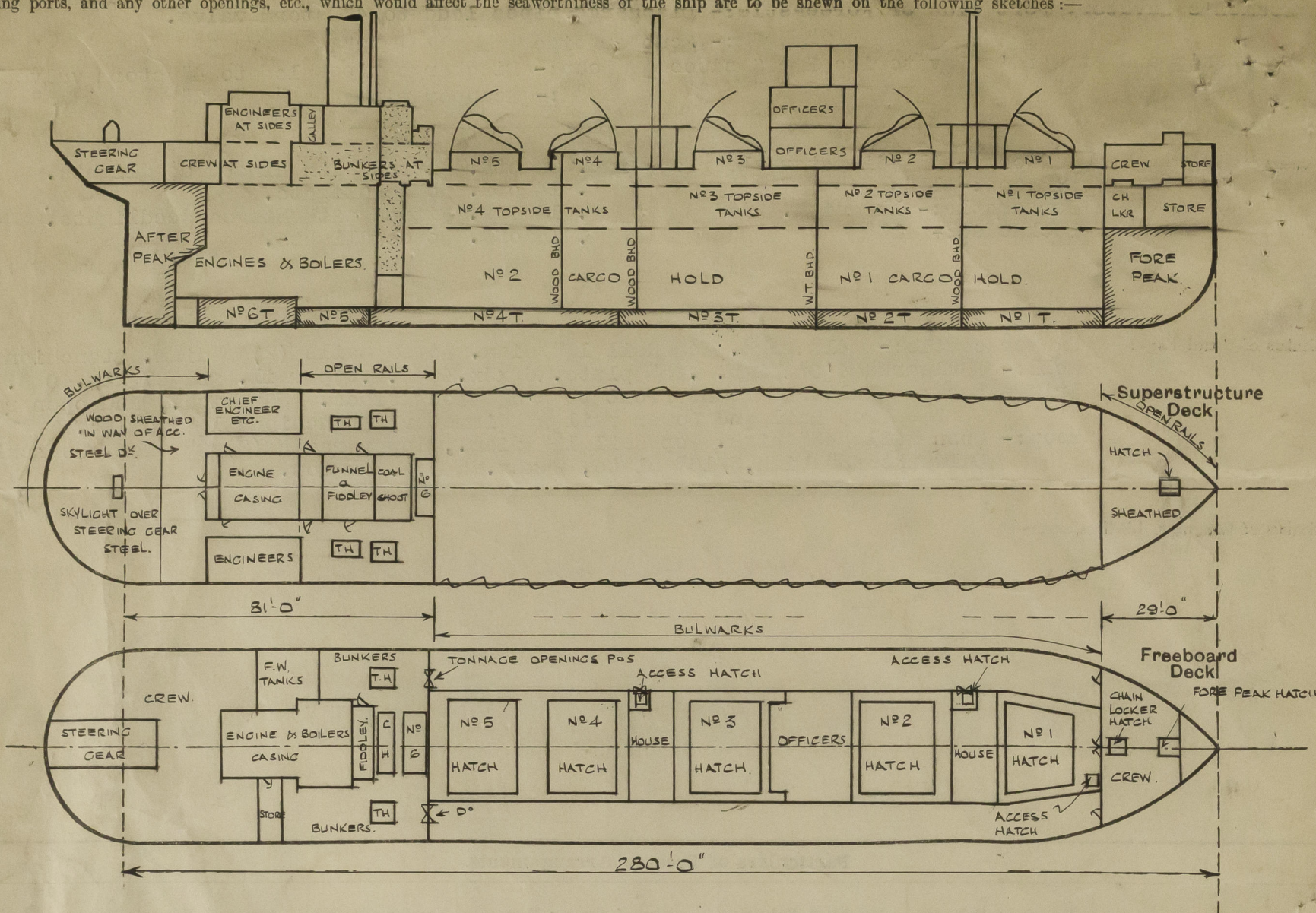
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board of Raised Quarter Decks ...
Exposed Machinery Casings on Super-

375 BKTS. 12 R

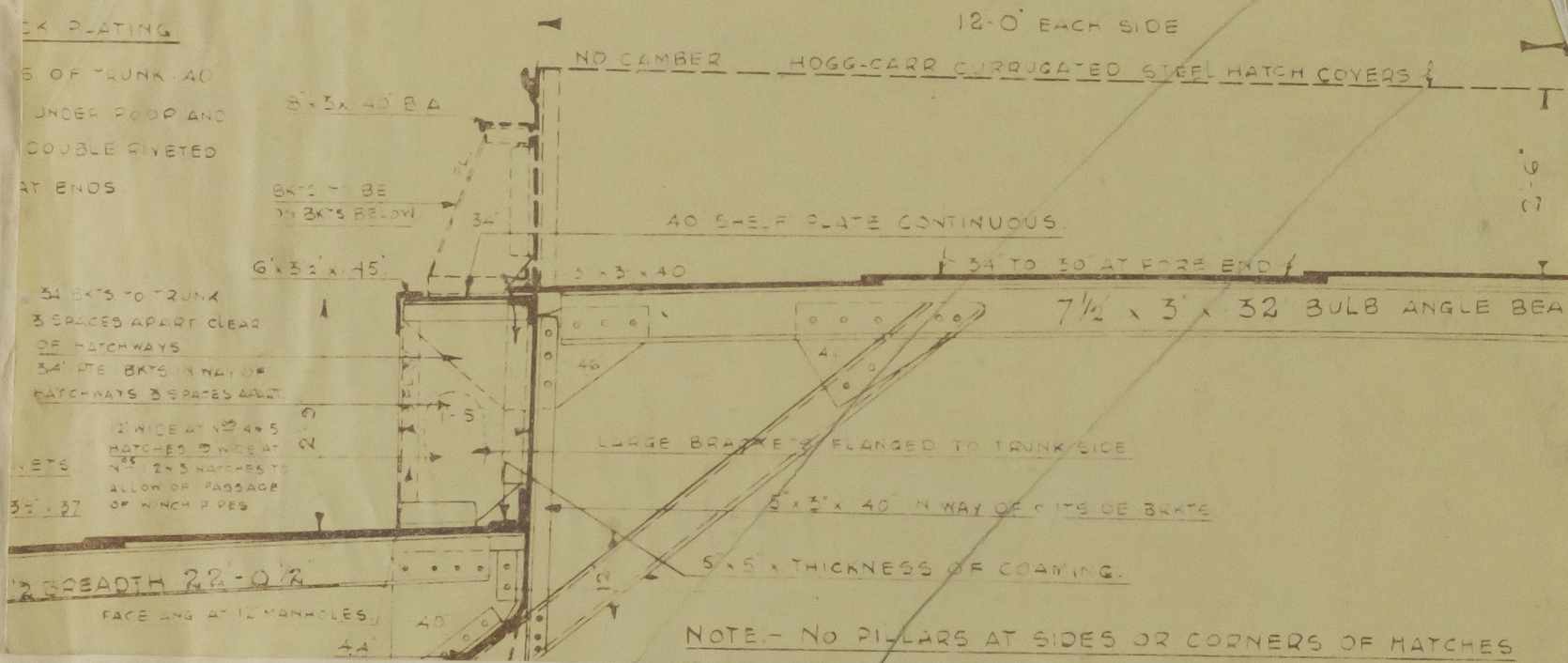
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20 59

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:—

Raised Trunk on Freeboard Deck.



SURVEYED AFLOAT WHILE LYING AT PIPI TEA WHARF, WELLINGTON, N.Z.

Builder's name and yard number W. Gray and Company., Limited, West Hartlepool. No975

Names of sister ships "Kartigi"

Owners UNION STEAM SHIP COMPANY OF NEW ZEALAND, LIMITED. WELLINGTON, N.Z.

Fee £ 10 : 4 :

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