

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

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

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"KARTIGT"	British Wellington.	151503	2346.59	7-1925

Moulded Dimensions: Length 280'0" Breadth 44'1" Depth 21'1 1/2"
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons
Coefficient of fineness for use with Tables

Port of Survey Wellington.
Date of Survey 1st September, 1932.
Name of Surveyor [Signature]
Particulars of Classification + 100 A.1.
S.S. Ank. No. 1-29

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 = $\frac{Diff}{4} \times \left(1 - \frac{S_1}{L} \right) =$

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					
" 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 $\frac{S}{L} =$ 10%
" " $\frac{S_1}{L} =$ 10%
" " $\frac{E}{L} =$ 10%
Percentage from Table, Line A.
(corrected for absence of fore-castle (if required))
Percentage from Table, Line B.
(corrected for absence of fore-castle (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		
1/4 L from A.P.		4					4		
2/4 L " "		2					2		
Amidships		4					4		
3/4 L from F.P.		2					2		
1/4 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 1/2 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 = $\frac{\Delta}{40T}$ inches =	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient <table border="1"> <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 =		+	-	Depth Correction			Deduction for superstructures			Sheer correction			Round of Beam correction			Correction for Thickness of Deck amidships			Other corrections, scantlings, etc.		
	+	-																					
Depth Correction																							
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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 " "

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

		2 Trim'g						
Description of Hatchway	...	Hatches in Ditto on Poop	Hatch on Poop.	Hatch on Focle	Fore Peak in Focle	Chain lkr hatch	Access Hatches in Houses	Exposed Access Hatches
Dimensions of Hatchway	...	6'0"x4'6"	8'0"x3'0"	4'0"x2'6"	3'0"x4'0"	23½"x23½"	41½"x27"	23½"x17"
COAMINGS	Height above Deck	9"	31½"	28"	8"	8"	9"	24½"
	Thickness { Sides	3/8 BA	3/8	3/8	3/8 BA	3/8 BA	3/8	3/8
	Stiffeners ...	-	-	-	-	-	-	-
	Brackets, Stays	-	-	-	-	-	-	-
HATCH BEAMS	Number ...	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	Spacing ...							
FORE AND AFTERS	Scantling and Sketch							
	Bearing Surface							
HATCH COVERS	Number ...	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	Spacing ...							
HATCH COVERS	Unsuported Lengths							
	Scantling* and Sketch							
HATCH COVERS	Bearing Surface							
	Material ...	Wood	Wood	Wood	Wood	Wood	Wood	Wood
HATCH COVERS	Thickness ...	2"	2¼"	2¼"	2¼"	2¼"	2¼"	2¼"
	How fitted	Thwart	Thwart	Thwart	Thwart	Solid	Thwart	Solid
HATCH COVERS	Bearing Surface	2½"	3"	3"	2¼"	2¼"	2¼"	2¼"
	Spacing of Cleats	27	21"	20"	36"	15"	30"	15"
Number of Tarpaulins	...	2	2	2	2	2	2	2

*Are wood fore and afters steel shod at all bearing surfaces? Fore and Afters not fitted.

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? Four ringbolts each side Nos.1,2,3,4,5 and 6 Hatches.

Particulars of fiddley, funnel and ventilator coamings:- All on Casing Top which is 3'0" above Poop Deck.
One Piddley Grating Forward of Funnel. Fitted with hinged flaps.
Two circular gratings abreast Funnel. Fitted with portable steel covers. *Permanently attached*
Machinery Ventilators :- Coamings about 7'0" above Casing Top.
Engine Room Skylight:- Steel fitted with hinged flaps. Sill 22" above Casing Top.

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways :—

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— All ventilators fitted with plugs and covers.									
<u>Forecastle:-</u>	Two	6"	diameter Ventilators,	Coamings	33"	high above	deck.		
	Three	9"	"	"	30"	"	"	"	
<u>In Well:-</u>	One	10"	"	"	84"	"	supported	Trunk.	Support.
	Four	15"	"	"	36"	"	"	"	
<u>Winch Houses:-</u>	Five	15"	"	"	31"	"	"	deck	
	Two	15"	"	"	27"	"	"	deck.	
<u>Poop:-</u>	Two	15"	"	"	27"	"	"	"	
	Three	6"	"	"	27"	"	"	"	
	One	9"	"	"	27"	"	"	"	

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—				
	One	Two	Three	Four
Forecastle:—	One	Air Pipe.	7½"	above deck to mouth.
Well:—	Sixteen	" "	54"	" " " "
On Trunk:—	Eight	" "	11"	Trunk " "
Poop:—	Seven	" "	7"	deck " "

Particulars of Gangway Cargo and Coaling Ports :—

Particulars of Scuppers and Sanitary Discharge Pipes :—

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

Scupper pipe led to 2" storm valve.

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

guard rails

Particulars of ~~Side Stanchions~~ On Forecastle:- Open rails 41" high. Top Rail $1\frac{3}{4}$ " diam. Lower rails (2) $\frac{7}{8}$ " diam. Stanchions $1\frac{1}{4}$ " to $1\frac{1}{8}$ ".

Well:- Bulwarks 4'0" high, .25" plate. 6½x3x.40 B.A. top rail. Stays 7½x3x.40 spaced 5'0".

Bridge Deck:- Bulwarks round front to 5'3" along sides. 38" high, and open rails 38" high, top rail and lower rail $\frac{7}{8}$ " diameter, stanchions $1\frac{1}{4}$ " to $1\frac{3}{8}$ ".

Poop:- Open rails 43" high. Top rail 1 3/4" diam., lower rails (2) 7/8" diam., stanchion 1 1/4" to 1 3/4"
 Bulwarks 45" high, 3/16" plate, 5x2 1/2 x .25 B.A. on top.

side scuttles,

Particulars of Ground Deck:— In Poop:— 11" diameter Clear opening. 20 off. Fitted with hinged deadlights.

On Poop:- 11" " " " . 14 off. No deadlights.

Forecastle: -11" " " " 14 off. Fitted with hinged deadlights.

Deackhouse:-13" " " " . 16 off. No deadlights.

Particulars of Gangways, Lifelines, etc. :—

Quilts means provided for freezing lifetime.

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	170'6"	48"	35" x 23"	6	33.3 sq.ft.	34 sq.ft.
Forward Well	-	-	-	-	-	-

State position of each freeing port } ~~After~~ Well :— 6'0", 28'0", 44'0", 76'6", 108'0", 135'0" from Poop bulkhead.
 (F. and A. position and height above deck edge) } Forward Well :— -----

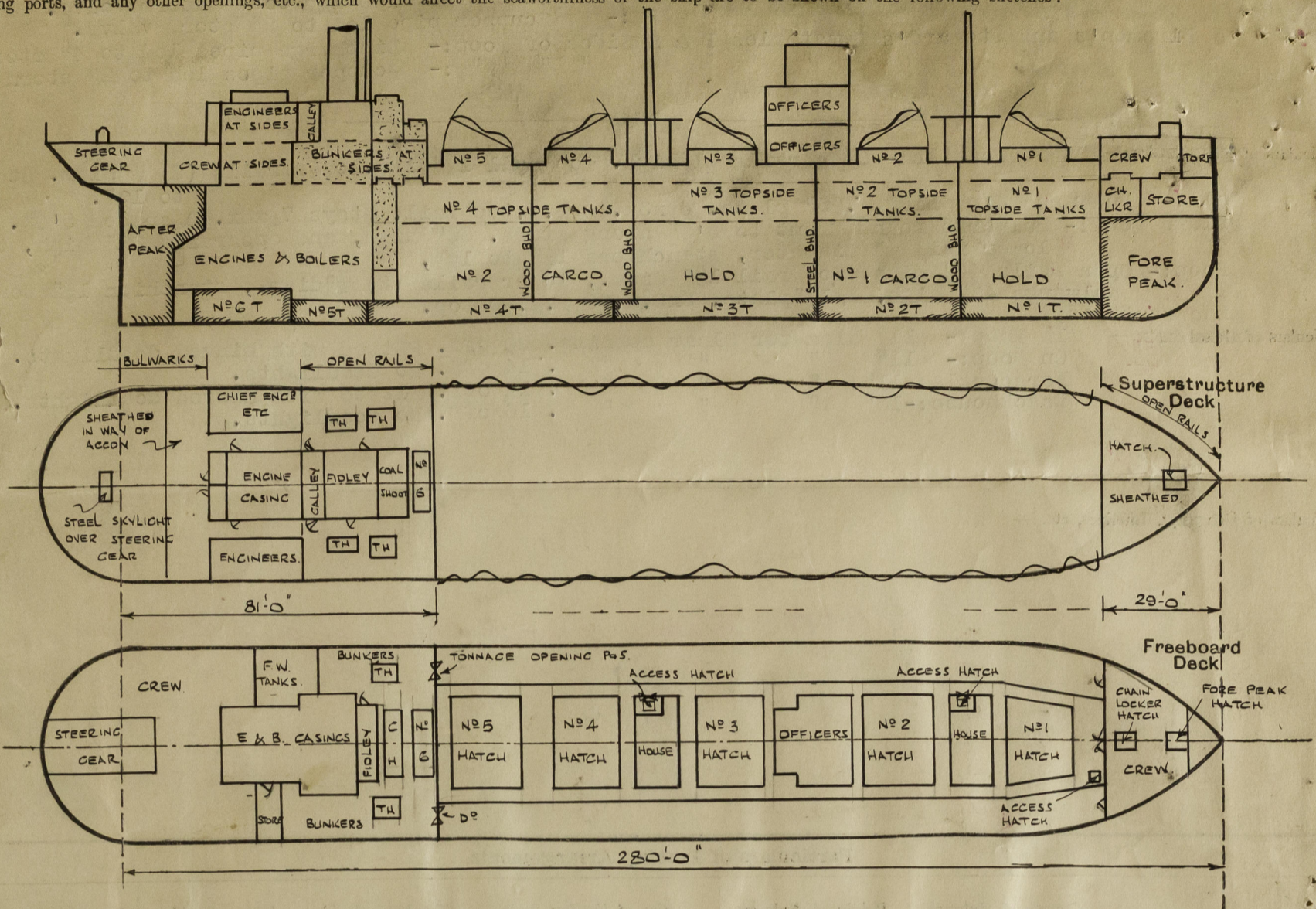
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :— Two horizontal bars.

Additional area where sheer is less than standard.

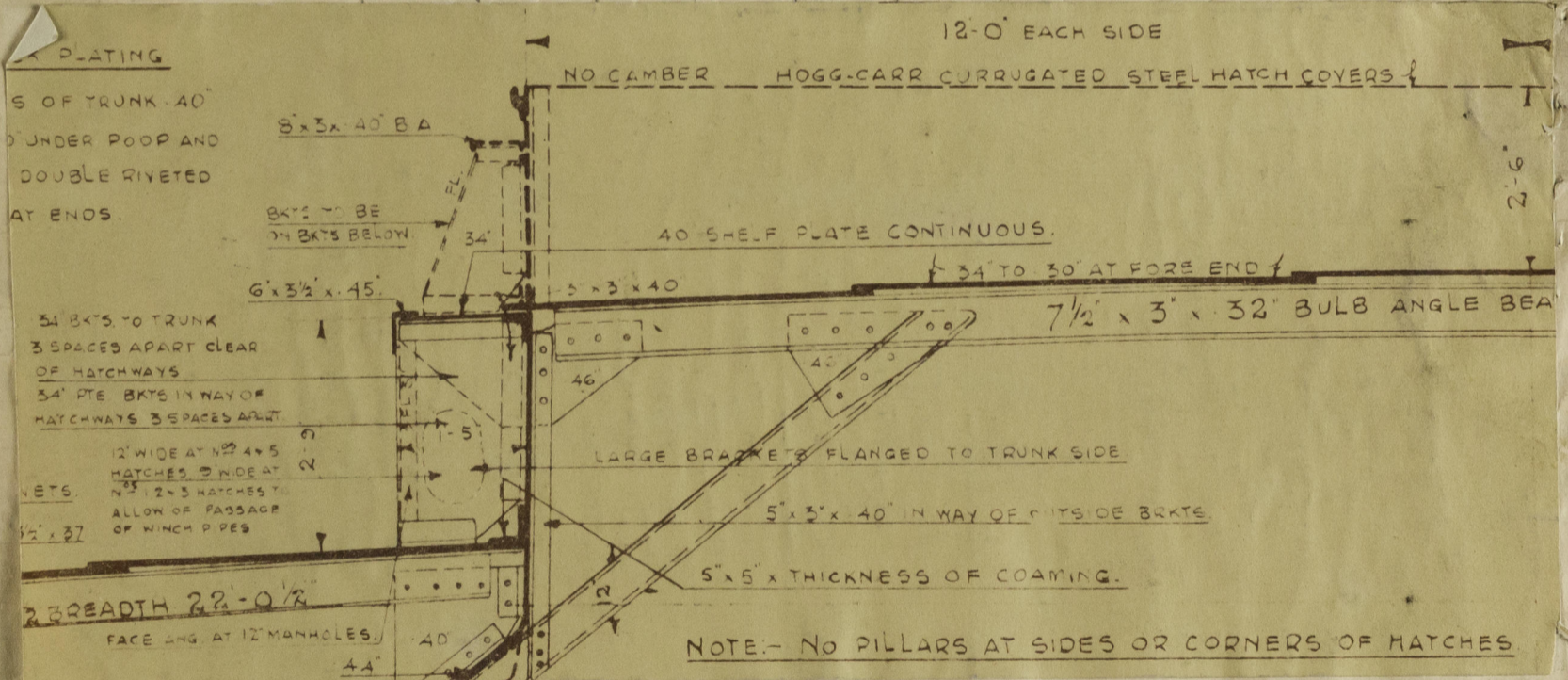
Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead375"	.375"	8x3x.36 B.A.	30"	LUG TOP & BOTTOM 52N EACH WAY	5'1" x 37"	22"	7'6"
Raised Quarter Deck Bulkhead ...	-	-	-	-	-	-	-	-
Bridge, After Bulkhead	-	-	-	-	-	-	-	-
Bridge, Forward Bulkhead	-	-	-	-	-	-	-	-
Forecastle Bulkhead	-	5/16	2½x3x5/16 OA	35"	None	1@ 6'0" x 4" 2@ 5'0" x 24"	14" ABOVE TRUNK 13" DECK	7'6"
Trunk, Aft	See sketch on page 4.							
Trunk, Forward	See sketch on page 4.							
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	-	-	-	-	-	-	-	-
Exposed Machinery Casings on Super- structure Decks	⅜	5/16	3x3x.25 oa	30"	3/5" STS 12 R TOP ONLY	2@ 58" x 27" 2@ 59" x 27" 2@ 59" x 23"	17" 18" 18"	7'0"
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	⅜	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 COVERED WITH 3" BOARDS WITH 2 -4"x2" STRONGBACKS WITH 2-7/8" BOLTS EACH.
Raised Quarter Deck Bulkhead ...	-----
Bridge, After Bulkhead	-----
Bridge, Forward Bulkhead	-----
Forecastle Bulkhead	One 6'0" x 41" double steel doors and two 5'0" x 24" steel doors. All operable both sides.
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	-----
Exposed Machinery Casings on Super-structure Decks	4 steel doors 5/16" plate and 2 wood doors 1 3/4" thick. All operable both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	TWO One steel doors 5/16" plate. Operable both sides.
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:— Raised Trunk on Freeboard Deck.



SURVEYED AFLOAT WHILE LYING AT THE RAILWAY WHARF WELLINGTON, N.Z.

Builder's name and yard number. W. Gray and Company, Limited, West Hartlepool. No. 974.

Names of sister ships. "Kiwitea"

Owners. UNIONSTEAM SHIP COMPANY, OF NEW ZEALAND LIMITED. WELLINGTON, NEW ZEALAND.

Fee £ 10 : 7 : —

Received by me.