

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

W128

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~
having ONE DECK (STEEL)
1371096 AND FORECASTLE
(Type of Superstructures.)

Port of Survey SYDNEY N.S.W.

Date of Survey 23/4/35 8/5/35

Ship's Name S.S. KAKARIKI Nationality and Port of Registry 1371715H 133913 Gross Tonnage 887 Date of Build 1926-6
MEH BAHUANE

Name of Surveyor Jas. C. Gaskin

Moulded Dimensions: Length 190' 0" Breadth 31' 3" Depth 15' 0"
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1709 tons
Coefficient of fineness for use with Tables .790

Particulars of Classification +100A1
S.S. MEH. N.2-54

Depth for Freeboard (D)

Moulded depth 15' 0"
Stringer plate40"
Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$
Depth for Freeboard (D) = 15' 0.35"

Depth correction

(a) Where D is greater than Table depth ^{2.36}
(D-Table depth) R = $(15.03 - 12.67) 1.461$
= + 3.45"

(b) Where D is less than Table depth (if allowed)
(Table depth-D) R = ✓

If restricted by superstructures ✓

Round of Beam correction

Moulded Breadth (B) 31.25
Standard Round of Beam = $\frac{B \times 12}{50} =$ 7.50"
Ship's Round of Beam = 9"
Difference Excess 1.50"
Restricted to
Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.50^2}{4} \times .5194 = - .19"$

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>53.16</u>	<u>53.16</u>	<u>7' 9"</u>	<u>✓</u>	<u>53.16</u>
" overhang aft					
" overhang forward	<u>38.16</u>	<u>16</u>	<u>7' 9"</u>	<u>✓</u>	<u>38.16</u>
F'cle enclosed	<u>47.83</u>	<u>38.08</u>	<u>7' 9"</u>	<u>✓</u>	<u>38.16</u>
" overhang	<u>4.83</u>				
Trunk aft			<u>2' 6"</u>		
" forward	<u>48.83</u>				
Tonnage opening aft					
" forward					
Total	<u>91.32</u>	<u>91.32</u>			<u>91.32</u>

Standard Height of Superstructure 6.00'

" " R.Q.D. ✓

Deduction for complete superstructure 25.00"

Percentage covered $\frac{S}{L} =$ 48.06%
" $\frac{S_1}{L} =$ 48.06%
" $\frac{E}{L} =$ 48.06%

Percentage from Table, Line A. 30.35%
(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 = 25.00 \times .3035 = - 7.59"

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>29.00</u>	<u>1</u>		<u>29.00</u>	<u>39.0</u>	<u>39.00</u>	<u>1</u>		<u>39.00</u>
$\frac{1}{8}$ L from A.P.	<u>12.90</u>	<u>4</u>		<u>51.60</u>	<u>17.85</u>	<u>16.98</u>	<u>4</u>		<u>67.92</u>
$\frac{3}{8}$ L "	<u>3.19</u>	<u>2</u>		<u>6.38</u>	<u>4.25</u>	<u>4.25</u>	<u>2</u>		<u>8.50</u>
Amidships	<u>✓</u>	<u>4</u>		<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>4</u>		<u>✓</u>
$\frac{5}{8}$ L from F.P.	<u>6.38</u>	<u>2</u>		<u>12.76</u>	<u>7.0</u>	<u>6.52</u>	<u>2</u>		<u>13.04</u>
$\frac{7}{8}$ L "	<u>25.80</u>	<u>4</u>		<u>103.20</u>	<u>26.25</u>	<u>26.07</u>	<u>4</u>		<u>104.28</u>
F.P.	<u>58.00</u>	<u>1</u>		<u>58.00</u>	<u>66.0</u>	<u>66.00</u>	<u>1</u>		<u>66.00</u>
Total	<u>267</u>			<u>260.94</u>					<u>298.74</u>

Mean actual sheer aft = Excess
Mean standard sheer aft

Mean actual sheer forward = Excess
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = ✓
" " aft of " = ✓

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75-S}{2L} \right) = \frac{7.80}{18} \left(\frac{.75-.2403}{.5097} \right) = - 2.21"$

If limited on account of midship superstructure. Yes Nul.

If limited to maximum allowance of $1\frac{1}{2}$ 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

Depth Correction 3.45
Deduction for superstructures 7.59
Sheer correction ✓
Round of Beam correction19
Correction for Thickness of Deck amidships ✓
Other corrections, scantlings, etc. ✓

	+	-	
	<u>3.45</u>	<u>7.59</u>	<u>21.40</u>
	<u>✓</u>	<u>✓</u>	<u>23.13</u>
	<u>3.45</u>	<u>7.78</u>	<u>- 4.33</u>
Summer Freeboard =	<u>18.80</u>		

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

Existing freeboards as reassigned being more favourable than those computed under the Convention

Tropical Fresh Water Line above Centre of Disc 5"
Fresh Water Line " " 3 1/2"
Tropical Line " " 1 1/2"
Winter Line below " " 1 1/2"
Winter North Atlantic Line " " 3 1/2"

Tropical Fresh Water Freeboard 1' 5"
Fresh Water " " 1' 0"
Tropical " " 1' 1 1/2"
Winter " " 1' 3 1/2"
Winter North Atlantic " " 1' 8 1/2"

MARKING FORM
26 AUG 1935
RECEIVED

Kakaviki

Particulars of fiddle, funnel and ventilator coamings:— On casing 30 inches in height on superstructure deck.
 Engine casing fitted with strong steel skylight. ✓
 Fiddle casing 8' 9" on bridge deck, gratings fitted with hinged steel covers. ✓
 Funnel casing carried full height of funnel. ✓
 Machinery space ventilators with supported and passing inside of casing. ✓

None. ✓

None.

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

On Fore-castle:— (To Accommodation) 5-8" dia. with 40" casing. ✓
(To Hold) 1-14" dia. with 33" casing. ✓

On Deck between No. 1 and 2 hatches:— 2-14" dia. with 33" casing. ✓
at after end of well:— 2-14" dia. with 33" casing. ✓

all fitted with iron flaps and canvas covers. ✓
all securely riveted to the deck plating. ✓

Particulars of Air Pipes in exposed positions on freeboard, ^{raised quarter,} or superstructure decks:— *8" wall neck type, mild steel, and*
fitted with steel plugs.
 On forecath:— *8" dia. height to flaring 2".*
 On well:— *2 1/2" dia. height to flaring 25".*
 On trunk, at aft end of No. 2 hatch, *3" dia. height to flaring 18".*
 aft:— *2" dia. height to flaring 24".*

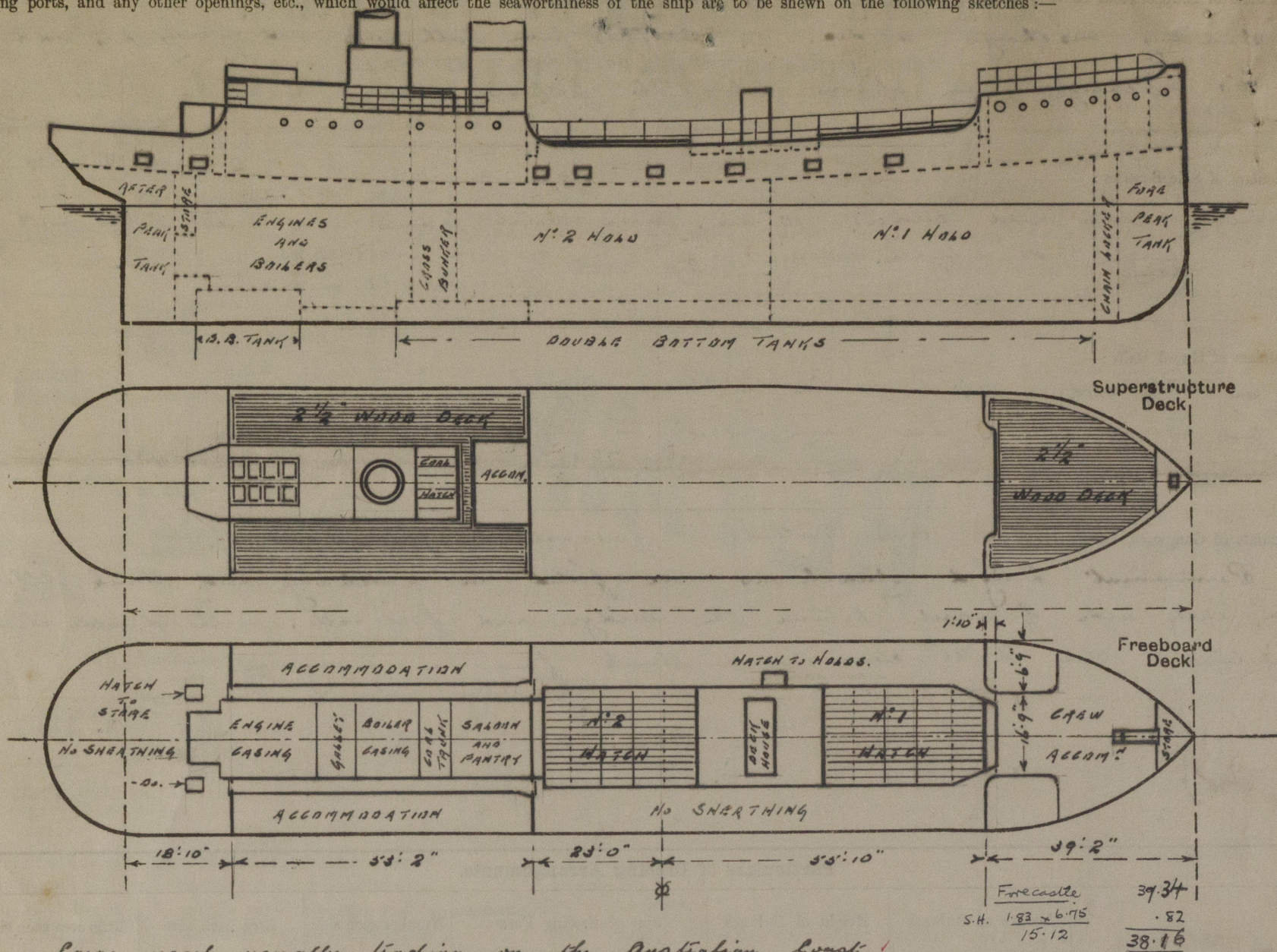
None. ✓

Particulars of Gangways, Lifelines, etc.:-
Our hatches in forecath. ✓
Pum and hinged stanchions are fitted on hatchway and tank stiffeners on each side of vessel between the bridge and forecath, with double chain lifelines. The hatch covers and tank form a gangway. ✓

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	32"	32"	2 1/4" x 2 1/4" x 32 L	36"	NONE	4'10" x 1'7"	20"	7'9"
Bridge, Forward Bulkhead	44"	32"	5" x 3" x 30 L	36"	BRIGGETS TOP & BOTTOM	4'10" x 1'7"	19"	7'9"
Forecastle Bulkhead	38"	38"	3 x 2 1/2" x 32 L	24"	NONE	4'10 1/2" x 1'6 1/2"	20"	7'9"
Trunk, Aft								
Trunk, Forward	44"	44"	5 x 3 1/2" x 38 L 15 1/2" x 36 PLATING 1 x 4 x 50 x 3 1/2"	22"	FIXED TO BEAMS TOP AND BOTTOM	NONE	NONE	2'6"
Exposed Machinery Casings on Free-board on Raised Quarter Decks ...	32"	32"	2 1/4" x 2 1/4" x 32 L	36"	NONE	4'9 1/2" x 1'8"	20"	7'9"
Exposed Machinery Casings on Superstructure Decks	32"	32"	2 1/4" x 2 1/4" x 32 L	36"	BRIGGETS AT TOP	5'8" x 1'9"	10"	{ 6'9" 2'6"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	32"	32"	2 1/4" x 2 1/4" x 32 L	36"	CONTINUED TO DECK ABOVE	5'2" x 1'9"	19"	7'9"
Deckhouses on Flush Deck Ships ...								

Poop Bulkhead		
Raised Quarter Deck Bulkhead ...		
Bridge, After Bulkhead	Hinged wood doors. ✓	Can be manipulated from both sides. ✓
Bridge, Forward Bulkhead	Hinged steel doors, framed with rubber joints and wedge fastenings. ✓	Can be manipulated from both sides? ✓
Forecastle Bulkhead	Hinged wood doors. ✓	Can be manipulated from both sides. ✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	Hinged wood doors. ✓	Can be manipulated from both sides. ✓
Exposed Machinery Casings on Superstructure Decks	Hinged steel doors. ✓	Can be manipulated from both sides. ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Hinged steel doors. ✓	Can be manipulated from 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:—



Large vessel usually trading on the Australian Coast.
 Surveyed afloat without including any part of a Special Survey.

State any special features in the construction of the ship:—

The casings of N°1 and 2 hatchways are continued to form a trunk, 30 inches in height between these hatchways. Between the bridge front bulk head and N°2 hatch is a trunk 30 inches in height and 12 feet in width. Between N°1 hatch and the fore-castle bulk head the hatch casings are continued to form a trunk 30 inches in height and 12 feet in width at the fore-castle bulk head.

Hatch on freeboard deck to chain locker is within enclosed portion at forward end of fore-castle and is fastened by a hinged steel door. No battening arrangements fitted.

Builder's name and yard number. COCHRANE AND SONS, LTD. SELBY. N° 993

Names of sister ships.

Owners UNION STEAMSHIP CO. OF NEW ZEALAND LTD.

Fee £ : : Received by me



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