

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, ~~Sailing Ship~~, Tankerhaving 1 Deck (Stl).Raised Quarter Deck & Forecastle.

(Type of Superstructures.)

Port of Survey Townsville.Date of Survey January 18th/36Name of Surveyor A M Parrie.
*Surveyor appointed by Lloyd's Agents.*Particulars of Classification 100A1
S.S. Tns No 1-32.

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
M.S. "KATOORA"	British Melbourne	153920	327	1927-10
Moulded Dimensions: Length <u>134.75'</u> Breadth <u>26.0'</u> Depth <u>9.5'</u>				
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>610</u> tons				
Coefficient of fineness for use with Tables <u>.755</u>				

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	9.5'	(a) Where D is greater than Table depth	.55'	Moulded Breadth (B)	26.0'
Stringer plate	.34"	(D-Table depth) R =	(9.53 - 8.98) 1.036	Standard Round of Beam = $\frac{B \times 12}{50}$	6.24"
Sheathing on exposed deck				Ship's Round of Beam	7.0"
$T \left(\frac{L-S}{L} \right) =$		(b) Where D is less than Table depth (if allowed)		Difference	Excess .76"
		(Table depth-D) R =		Restricted to	
Depth for Freeboard (D) =	9.53'	If restricted by superstructures	✓	Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right)$	$= \frac{.76^2}{4} \times .5134 = -.10$

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	40.67	40.50	3.0	$\frac{3.00}{3.231}$	37.60
" overhang	✓				
Bridge enclosed	✓				
" overhang aft	✓				
" overhang forward	24.30				
Fore. enclosed	25.83	24.30	7.0	✓	24.30
" overhang	1.53	.76			.76
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	66.33	65.56			62.66

Standard Height of Superstructure	6.00'
" " R.Q.D.	3.231'
Deduction for complete superstructure	19.475"
Percentage covered $\frac{S}{L} =$	49.23%
" " $\frac{S_1}{L} =$	48.66%
" " $\frac{E}{L} =$	46.50%
Percentage from Table, Line A.	
(corrected for absence of forecastle (if required))	29.02%
Percentage from Table, Line B.	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction =	19.475 + .2902 = - 5.65"

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	23.47	1	23.47	13.51	13.50	1	13.50
$\frac{1}{2}$ L from A.P. ...	10.44	4	41.76	5.91	5.90	4	23.60
$\frac{3}{8}$ L " ...	2.58	2	5.16	1.51	1.50	2	3.00
Amidships ...	✓	4	✓	✓	✓	4	✓
$\frac{3}{8}$ L from F.P. ...	5.16	2	10.32	4.41	4.40	2	8.80
$\frac{1}{2}$ L " ...	20.88	4	83.52	17.81	17.80	4	71.20
F.P. ...	46.94	1	46.94	42.01	42.00	1	42.00
Total			211.17				162.10

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{49.07}{18} \left(.75 - \frac{24.61}{134.75} \right) = + 1.37"$

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.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 9.53'

Summer freeboard = .87'

Moulded draught (d) = 8.66'

for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = $2.16" = 2\frac{1}{4}"$

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 $\frac{\Delta}{40T} = 2\frac{1}{4}"$

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient

 $\frac{.755 + .68}{1.36} = \frac{1.435}{1.360}$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

+	-
1.57	
	5.65
1.37	
	.10
1.94	5.75


Summer Freeboard = 10.51'

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

Tropical Fresh Water Line above Centre of Disc	3 $\frac{3}{4}"$
Fresh Water Line	2 $\frac{1}{2}"$
Tropical Line	1 $\frac{1}{2}"$
Winter Line below	1 $\frac{1}{2}"$
Winter North Atlantic Line	3 $\frac{1}{2}"$

Tropical Fresh Water Freeboard	0' - 10 $\frac{1}{4}"$
Fresh Water	0' - 6 $\frac{1}{2}"$
Tropical	0' - 8 $\frac{3}{4}"$
Winter	0' - 11 $\frac{3}{4}"$
Winter North Atlantic	1' - 1 $\frac{3}{4}"$

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
FREEBOARD DECK									
Description of Hatchway	No 1	No 2							
Dimensions of Hatchway	28'9" x 12'0"	24'6" x 12'0"							
COAMINGS	Height above Deck ... 30" / Sides ... 38" / Ends ... 38" / Stiffeners ... 7x3x38" / Brackets, stays ... 2 each side	30" / 38" / 38" / Continuous / 2 each side							
HATCH BEAMS	Number ... 5 / Spacing ... 3'-10" / Scantling and Sketch ...  / Bearing Surface ... 3" / 3"	5 / 4'-1" / Plate 17" deep x 30" thick / 3x3x40 double angles top & bottom							
FORE AND AFTERS	Number ... / Spacing ... / Unsupported Lengths ... / Scantling* and Sketch ... / Bearing Surface ...								
HATCH COVERS	Material ... White pine / Thickness ... 2 1/2" / How fitted ... fore & aft / Bearing Surface ... 3" / 3"	White pine / 2 1/2" / fore & aft / 3" / 3"							
Spacing of Cleats	1'-6"	1'-6"							
Number of Tarpaulins	2	2							
*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/> Yes Are battens and wedges efficient and in good condition? <input checked="" type="checkbox"/> Yes Are tarpaulins in good condition and in accordance with rule requirements? <input checked="" type="checkbox"/> Yes Are lashings provided in accordance with rule requirements? <input checked="" type="checkbox"/> Yes & Ring bolts fitted for special lashings									

Particulars of fiddle, funnel and ventilator coamings:—

Strong steel casing over Machinery space on R.Q.D.
Strong steel Ventilators to Machinery space efficiently attached.
Funnel for Engine exhaust - efficiently attached.

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways:—

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

On fore-castle deck - Three 9" dia, 2'-6" coamings, three 6" dia, 1'-6" coamings
" freeboard " - Two 12" dia, 3'-0" coamings
All Ventilator coamings are efficiently constructed. Wood plugs & canvas covers provided.

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

3" Air pipe to Fore peak tank close to Stem bar, opening 1'-10" above deck
2 1/2" " " " After " " close to bulwarks " 2'-0" " "
Air pipes - "Swan-neck" pattern & fitted with plugs for closing appliance

Particulars of Gangway Cargo and Coaling Ports:—

Particulars of Scuppers and Sanitary Discharge Pipes —

Sanitary discharges are fitted with G.M. non-return Valves on ships sides /
No overboard discharges from spaces below freeboard deck.

Particulars of Side Scuttles:

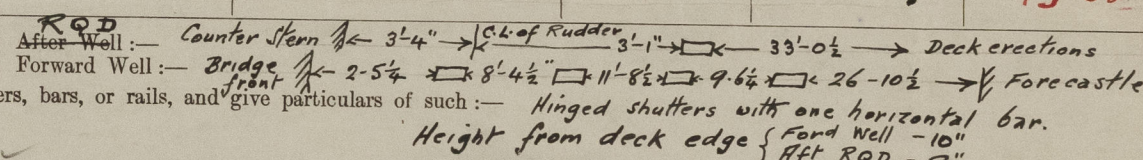
In fore-castle & R.Q.D spaces - 11" dia G.M. frames, fitted with hinged C.I. deadlights.
No side scuttles below the line of freeboard deck.

Particulars of Guard Rails:—

Fore-castle - 3 Bar open rails 3'-6" high
Fore Well - Bulwarks 3'-2" high efficiently constructed.
R.Q.D - " 3'-0 1/2" " " "

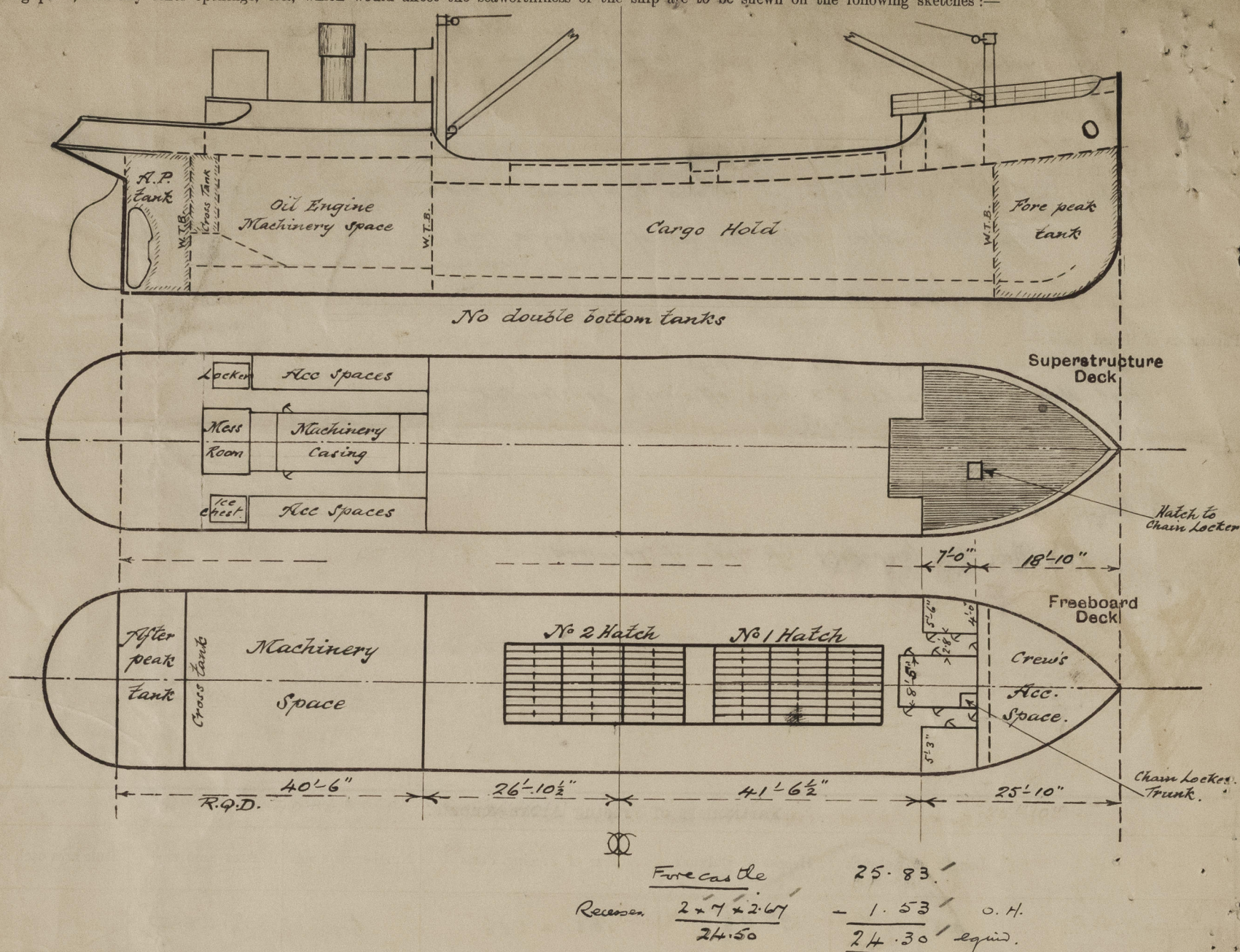
Particulars of Gangways, Lifelines, etc.:—

Provision for temporary life lines if 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 R.Q.D.	43'-10"	3'-0 1/2"	18 1/2" x 28 1/2"	1	3.66 ft ²	10.88 ft ²
Forward Well	68'-5"	3'-2"	18 1/2" x 28 1/2"	4	14.64 ft ²	13.68
State position of each freeing port ... 						
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
Poep Bulkhead	✓	✓	✓	✓	✓	✓	✓	✓
Raised Quarter Deck Bulkhead	30"	30"	4 1/2 x 3 x 30"	3'-0"	✓	✓	✓	3'-0"
Bridge, After Bulkhead	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, Forward Bulkhead	✓	✓	✓	✓	✓	✓	✓	✓
Fore-castle Bulkhead	30"	26"	2 1/2 x 2 1/2 x 30"	2'-6"	✓	23" x 56"	18 1/2"	7'-0"
Trunk, Aft	✓	✓	✓	✓	✓	✓	✓	✓
Trunk, Forward	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Deck	30"	26"	2 1/2 x 2 1/2 x 30"	3'-0"	Brackets at Top	24" x 57"	18 1/2"	7'-0"
Exposed Machinery Casings on Superstructure Decks	✓	✓	✓	✓	✓	✓	✓	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓	✓	✓	✓	✓	✓	✓	✓
Deckhouses on Flush Deck Ships	✓	✓	✓	✓	✓	✓	✓	✓
Particulars of Closing Appliances (state if capable of being manipulated from both sides).								
Poep Bulkhead	✓	✓	✓	✓	✓	✓	✓	✓
Quarter Deck Bulkhead	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, Forward Bulkhead	✓	✓	✓	✓	✓	✓	✓	✓
Fore-castle Bulkhead	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Deck	✓	✓	✓	✓	✓	✓	✓	✓
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:— *None*

Cargo Vessel (Motorship) usually employed on the Queensland Coastal trade.

Vessel surveyed afloat - No part of the special survey carried out at this time.

No sheathing on freeboard deck - fore-castle deck 2 1/2" wood sheathing.

On fore-castle deck - Hatch to chain locker 19 1/4" x 20 1/4", coaming 1' 3 1/2" high .26" thick, fitted with 2 1/2" wood covers, 2 1/2" bearing surface, cleats, battens & 2 tarpaulins (Hatch trunked to freeboard deck).

Builder's name and yard number *G. Brown & Co. Greenock Yard No 155*

Names of sister ships *—*

Owners *The Adelaide Steamship Co. Ltd*

Fee £ *6* : *0* : *0*

Received by me

A M. Parrie



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Foundation