

ATALAIA
38051

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, ~~SAILING SHIP~~, TANKER)

Index. No. 38052
(For London Office only).

Ship's Name "CABEDELO"	Official Number	Nationality and Port of Registry Brazilian Rio de Janeiro	Gross Tonnage 3000 Approx. 3142.34	Date of Build 1945.	Port of Survey Montreal
Moulded Dimensions: Length <u>320.0'</u> Breadth <u>44.0'</u> Depth <u>25.12'</u>					Date of Survey While Building
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>6460</u> tons					Surveyor's Signature <i>J. S. Morrison</i>
Coefficient of fineness for use with Tables <u>.752 X</u>					Particulars of Classification <u>* 100A1</u>

Depth for Freeboard (D). Moulded depth ... <u>25.12</u> X Stringer plate ... <u>17.85 lbs</u> ... <u>.036</u> Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <u>25.156</u> X	Depth correction. (a) Where D is greater than Table depth (D—Table depth) R= $(25.156 - 21.33) 2.46 = +9.41$ X (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) <u>44'-0"</u> Standard Round of Beam = $\frac{B \times 12}{50} = \frac{44 \times 12}{50} = 10.56$ X Ship's Round of Beam = <u>11.00</u> Difference <u>.44</u> Restricted to <u>.44</u> Correction = $\frac{\text{Diff}^o}{4} \times \left(1 - \frac{S_1}{L} \right) = -.06$ X
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	28.9	28.9	7'6"		28.9
" overhang ...	---				
R.Q.D. enclosed ...	---				
" overhang ...	---				
Bridge enclosed ...	88.0	88.0	8'0"		88.0
" overhang aft ...					
" overhang forward ...					
Forecastle enclosed ...	33.10	32.55	7'6"		32.55
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	150.00	149.45			149.45

Standard Height of Superstructure	6.7' X
" " R.Q.D.	---
Deduction for complete superstructure	36.67 X
Percentage covered $\frac{S}{L} =$.4688
" " $\frac{S_1}{L} =$.467 X
" " $\frac{E}{L} =$.467 X
Percentage from Table, Line A.	33.19 X
(corrected for absence of forecastle (if required))	33.19 X
Percentage from Table, Line B.	33.19 X
(corrected for absence of forecastle (if required))	33.2%
Interpolation for bridge less than .2L (if required)	
Deduction = $\frac{33.19}{33.2\%}$ of 36.67	= 12.17 X

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	42.00	1		42.00	50.00	50.00	1		50.00
1/4L from A.P. ...	18.69	4		74.76	22.50	22.50	4		90.00
1/2L " ...	4.62	2		9.24	6.00	6.00	2		12.00
Amidships ...	0	4		0	0	0	4		0
3/4L from F.P. ...	9.24	2		18.48	11.00	11.00	2		22.00
1/4L " ...	37.38	4		149.52	45.25	45.25	4		181.00
F.P. ...	84.00	1		84.00	102.75	102.75	1		102.75
Total ...				378.00					457.75

Mean actual sheer aft = Excess
 Mean standard sheer aft = Excess

Mean actual sheer forward = Excess
 Mean standard sheer forward = Excess

Length of enclosed superstructure forward of amidships = $\frac{48}{320} = .15$
 " " aft of " = $\frac{46}{320} = .143$

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{79.75}{18} \left(.75 - \frac{150.00}{2 \times 320} \right) = -2.284$ X
 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. Ft. Depth to Freeboard Deck = <u>25.156</u> X Summer freeboard = <u>3.821</u> Moulded draught (d) = <u>21.335</u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>5 1/4"</u> X Addition for Winter North Atlantic Freeboard (if required) = <u>7 1/4"</u> X	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 6500 Tons per inch immersion at summer load water line $T =$ 29 Deduction = $\frac{\Delta}{40T}$ inches = <u>5 1/2"</u> X	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient. $.752 \times 48.40 = 50.96$ Depth Correction ... <u>9.41</u> X Deduction for superstructures ... <u>12.17</u> X Sheer correction ... <u>2.28</u> X Round of Beam correction ... <u>.06</u> X Correction for Thickness of Deck amidships ... Other corrections, scantlings, etc. ... Summer Freeboard = <u>45.86</u> X
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood Steel, Deck			
Tropical Fresh Water Line above Centre of Disc	10 1/2"	Tropical Fresh Water Freeboard	3'9 1/2"
Fresh Water Line	5 1/2"	Fresh Water	2'11"
Tropical Line	5 1/2"	Tropical	3'4 1/2"
Winter Line below	5 1/2"	Winter	3'4 1/2"
Winter North Atlantic Line	7 1/2"	Winter North Atlantic	4'5"

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Mld. depth 25'1.5"
7/16 Stringer - 0.4375
11/16 Keel - 0.6875
9/16 Garboard - 0.5625
25'3.1875"
Freeboard 3'9.75"
Draught 21'5.4375"
Say 21'5½"

Disp. at 20.0' =6000 Tons and Tons per in. 28.6
" " 21.0' =6312 " " " " " 28.875
" " 22.0' =6700 " " " " " 29.1875

Trade of ship Ocean going
Names of sister ships
Builder's name and yard number Canadian vickers Limited, Yard No 811
Owners Lloyd Brasileiro
Fee £



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