

23 MAR 1944

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(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "ITAHITE"	Official Number	Nationality and Port of Registry Brazilian, Rio de Janeiro	Gross Tonnage 4998	Date of Build 1928-9	Port of Survey Rio de Janeiro
Moulded Dimensions: Length 370.00' Breadth 52.0' Depth 26.75'					Date of Survey 24th Jan. 1948
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature <i>M. Caldwell</i>
Coefficient of fineness for use with Tables .74 (assumed)					Particulars of Classification 100A-

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth 26.75	(a) Where D is greater than Table depth (D - Table depth) R = (26.94 - 24.67) 2.27	Moulded Breadth (B) 52.00
Stringer plate06"	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 2.27	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{52 \times 12}{50} = 12.48$
Sheathing on exposed deck 2 1/2" $T \left(\frac{L-S}{L} \right) = \frac{2.5}{12} \times 6317 = 13$	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = 10 1/2"
Depth for Freeboard (D) = 26.94		Difference Deficient 1.98
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.98}{4} \times \frac{64}{8} = +.32$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	55.75 55.9	55.75 ✓	8'0" ✓	✓	55.75 ✓	Standard Height of Superstructure 7.20 ✓
„ overhang ...	(continuous to promenade deck)					„ „ R.Q.D. ✓
R.Q.D. enclosed ...						
„ overhang ...						Percentage covered $\frac{S}{L} = 36.83$ ✓
Bridge enclosed ...						„ „ $\frac{S_i}{L} =$ } 35.82 ✓
„ overhang aft ...						„ „ $\frac{E}{L} =$
„ overhang forward	73.04					Percentage from Table, Line A. 19.95 ✓
F'cle enclosed ...	77.9 77.9	73.04 ✓	8'0" ✓	✓	73.04 ✓	(corrected for absence of forecastle (if required))
„ overhang ...	7.46	3.73 ✓			3.73 ✓	Percentage from Table, Line B. ✓
Trunk aft ...						(corrected for absence of forecastle (if required))
„ forward ...						Interpolation for bridge less than .2L (if required) ✓
Tonnage opening aft ...						
„ „ forward						
Total ...	136.25	132.52 ✓			132.52 ✓	Deduction = 40.00 x .1995 = 7.98" ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	47.00	1		47.00	41.3	41.30	1		41.30	Mean actual sheer aft = Deficient
1/4 L from A.P. ...	20.915	4		83.66	14.16	14.16	4		56.64	Mean actual sheer forward = Deficient
1/2 L „ ...	5.17	2		10.34	1.68	1.68	2		3.36	Mean standard sheer forward
Amidships ...	—	4		—	0	—	4		—	Length of enclosed superstructure forward of amidships =
3/4 L from F.P. ...	10.34	2		20.68	9.36	9.36	2		18.72	„ „ aft of „ = NIL
3/4 L „ ...	41.83	4		167.32	37.56	37.56	4		150.24	
F.P. ...	94.00	1		94.00	94.5	94.50	1		94.50	
Total ...				423.00					364.76	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{58.24}{18} \left(\frac{.75 - .1841}{2 \times 152} \right) = +1.83$

If limited on account of midship superstructure. 5659 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 = **27.02**
 Summer freeboard = **6.50**
 Moulded draught (d) = **20.52**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **5.13" = 5 1/4"**
 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 $\frac{.74 + .68}{1.36} = \frac{1.42}{1.36}$

	+	-	
Depth Correction ...	6.46	—	AR. 2.4.48
Deduction for superstructures ...	—	7.98	
Sheer correction ...	1.83	—	
Round of Beam correction32	—	
Correction for Thickness of Deck amidships96	—	
Other corrections, scantlings, etc. <i>to correspond to a summer moulded draught of 20' 6 1/4"</i>	11.24	—	
	20.83	7.98	+12.85
Summer Freeboard =	78.00		

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

Tropical Fresh Water Line above Centre of Disc ...	9"	229 mm	Tropical Fresh Water Freeboard ...	6' 6"	1981 mm
Fresh Water Line " " ...	5"	127 mm	Fresh Water " " ...	5' 9"	1752 mm
Tropical Line " " ...	4"	102 mm	Tropical " " ...	6' 1"	1854 mm
Winter Line below " " ...	4"	102 mm	Winter " " ...	6' 2"	1879 mm
Winter North Atlantic Line " " ...	4"	102 mm	Winter North Atlantic " " ...	6' 10"	2083 mm

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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.

Forecastle - total length = 77.75' ✓
Recesses :- $\frac{18.0 \times 10.5}{49.50} = 3.82$ ✓ $\frac{4.71'}{73.04'}$ equivalent enclosed length.
 $\frac{12.25 \times 2.5}{49.50} = .62$ ✓
 $\frac{5.25 \times 2.5}{49.5} = .27$ ✓ $\frac{4.71'}{7.46'}$ ✓
o'hang = 4.71
 $\frac{2.75}{7.46}$ ✓

Trade of ship.....

Names of sister ships..... ***ITAIMBÉ***

Builder's name and yard number.....

Owners..... **Cia.Nacional de Navegação Costeira - Patrimonio Nacional**

Fee **Cr\$ 1.500,00**

Expenses **150,00**



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