

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index No. 34123.
(For London Office only).

Ship's Name "Britambube"	Official Number 1573⁵73	Nationality and Port of Registry Toronto. British.	Gross Tonnage 1932.	Date of Build 1932.	Port of Survey Toronto. Canada.
Moulded Dimensions: Length 250'0 Breadth 43'0 Depth 18'0					Date of Survey Aug. 3rd. 1937.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 3790 tons F.W.					Surveyor's Signature John Stephen.
Coefficient of fineness for use with Tables .83.					Particulars of Classification +100 A1. Carrying petroleum in bulk. For service on the Great Lakes and River St Lawrence, also to St. John N.B. and St. John's, Nfld.

Depth for Freeboard (D). Moulded depth 18'00 Stringer plate04 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓ Depth for Freeboard (D) = 18'04	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(18'04 - 16'67) 1.923 = 2'63$ $1.37.$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ ✓ If restricted by superstructures ✓	Moulded Breadth (B) = 43'00" Standard Round of Beam = $\frac{B \times 12}{50} =$ 10'32" Ship's Round of Beam = 11'00" Difference excess = .68" Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.68}{4} \times .2837 = -.05"$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	62.00	62.00	7.5	✓	62.00
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
Forecastle enclosed ...	41.00	41.00	7.5	✓	41.00
„ overhang ...					
Trunk aft ...		76.06	7.5	✓	76.06
„ forward ...					
Roaming opening aft ...					
„ „ forward ...					
Total ...	103.00	179.06			179.06

Standard Height of Superstructure	6'00'
„ „ R.Q.D.	✓
Deduction for complete superstructure	31'00"
Percentage covered $\frac{S}{L} =$	41.20
„ „ $\frac{S_1}{L} =$	41.63
„ „ $\frac{E}{L} =$	41.63
Percentage from Table, Line A. TANKER =	65.01
(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 =	31.00 x .6501 = 20.15"

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
P. ...	35.00	1		35.00	24.00	24.00	1		24.00
from A.P. ...	15.575	4		62.30	3.75	3.75	4		15.00
„ ...	3.85	2		7.70	-	-	2		-
amidships ...	-	4		-	-	-	4		-
from F.P. ...	7.70	2		15.40	-	-	2		-
„ ...	31.15	4		124.60	7.50	7.50	4		30.00
„ ...	70.00	1		70.00	48.00	48.00	1		48.00
Total ...				315.00					117.00

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{198.00}{18} (.75 - .206) = + 5.98"$
 If limited on account of midship superstructure. ✓

Mean actual sheer aft
Mean standard sheer aft = Deficient

Mean actual sheer forward
Mean standard sheer forward = Deficient

Length of enclosed superstructure forward of amidships = } Deficient
 „ „ aft of „ = } sheers.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 18'04 Summer freeboard = 1'96 Moulded draught (d) = 16'08 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 4'02 = 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 = $\frac{\Delta}{40T}$ inches = 4"	TABULAR FREEBOARD corrected for Fresh Deck (if required) Correction for coefficient $\frac{.83 + .68}{1.36} = \frac{1.51}{1.36}$ <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td>2.63</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures ...</td> <td>-</td> <td>20.15</td> </tr> <tr> <td>Sheer correction ...</td> <td>5.98</td> <td>-</td> </tr> <tr> <td>Round of Beam correction ...</td> <td>-</td> <td>.05</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> <tr> <td></td> <td>8.61</td> <td>20.20</td> </tr> </table> Summer Freeboard = 23'38		+	-	Depth Correction ...	2.63	-	Deduction for superstructures ...	-	20.15	Sheer correction ...	5.98	-	Round of Beam correction ...	-	.05	Correction for Thickness of Deck amidships ...	-	-	Other corrections, scantlings, etc. ...	-	-		8.61	20.20	31'50" 34'97"
	+	-																									
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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 ...	✓
Fresh Water Line " " ...	4"
Tropical Line " " ...	4"
Winter Line below " " ...	4"
Winter North Atlantic Line " " ...	✓

Tropical Fresh Water Freeboard ...	1' 11 1/2"
Fresh Water " " ...	1' 7 1/2"
Tropical " " ...	1' 7 1/2"
Winter " " ...	2' 3 1/2"
Winter North Atlantic " " ...	✓

28 JAN 1938