

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "BRUNA"	Official Number	Nationality and Port of Registry LIBERIAN. MONROVIA	Gross Tonnage 146	Date of Build 1947	Port of Survey TRIESTE
Moulded Dimensions: Length 30.5m Breadth 5.86m Depth 2.82m					Date of Survey 29th February 1952
Moulded displacement at moulded draught = 85 per cent. of moulded depth 291 metric tons					Surveyor's Signature Alex M Hopkins
Coefficient of fineness for use with Tables 68 (Actual 662)					Particulars of Classification CLASS 100A CONTEMPLATED. "FOR WEST AFRICAN AND SPANISH COASTING SERVICE."

DEPTH FOR FREEBOARD (D).

Moulded depth ... **2.820m**

Stringer plate ... **87m**

Sheathing on exposed deck
 $T \frac{(L-S)}{L} =$

Depth for Freeboard (D) = **2.828**

DEPTH CORRECTION.

(a) Where D is greater than Table depth
(D - Table depth) R = **8.33 (2.828 - 2.037) 7.715 = + 51m/-**

(b) Where D is less than Table depth (if allowed)
(Table depth - D) R = **.79**

If restricted by superstructures ☒

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) **5.86m**

Standard Round of Beam = $\frac{B \times 12}{50} = \frac{117}{50} = 2.34$

Ship's Round of Beam = **1254m**

Difference = **+ 8m/-**

Restricted to

Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{8}{4} \times 6661 = -1m/-$

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	5.80m	5.800	2.00m	-	5.800
" overhang aft	.50m	-	-	-	-
" overhang forward	-	-	-	-	-
Fore enclosed	5.00m	4.400	1.50m	1.500	3.606
" overhang	4.400	-	-	-	-
Trunk aft	-	-	-	-	-
" forward	-	-	-	-	-
Tonnage opening aft	-	-	-	-	-
" " forward	-	-	-	-	-
Total	10.200	10.200	-	-	9.406

Standard Height of Superstructure **1.830m**

" " R.Q.D. **-**

Deduction for complete superstructure **407m/-**

Percentage covered $\frac{S}{L} = \frac{33.39}{100}$

" " $\frac{S_1}{L} = \frac{30.79}{100}$

Percentage from Table, Line A. **15.67**

(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 = **407 x 1567 = - 64m/-**

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate <i>m/m</i>	Effective Ordinate	S M	Product
A.P.	508	✓ 1	508	✓ 190	190	1	190
$\frac{1}{8}$ L from A.P. ...	226	✓ 4	904	✓ 80	80	4	320
$\frac{2}{8}$ L " ...	563	✓ 2	113	✓ 25	25	2	50
Amidships ...	-	4	-	-	-	4	-
$\frac{3}{8}$ L from F.P. ...	113	✓ 2	226	✓ 80	80	2	160
$\frac{4}{8}$ L " ...	452	✓ 4	1808	✓ 340	340	4	1360
F.P.	1016	✓ 1	1016	✓ 725	725	1	725
Total ...			4575	✓			2805

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{1776 - 1670}{18} = +57m/-$

If limited on account of midship superstructure.

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

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 = **2.828**

Summer freeboard = **.298**

Moulded draught (d) = **2.530**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{48} \text{ inches} = \frac{2.530}{48} = 53m/- = 2m$

Addition for Winter North Atlantic Freeboard (if required) =**Deduction for Fresh Water.**

Displacement in salt water at summer load water line $\Delta = 307$ metric tons

Tons per inch immersion at summer load water line $T = 3.8$

Deduction = $\frac{\Delta}{40 T} \text{ inches} = \frac{307}{40 \times 3.8} = 2m$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **N.L.**

Depth Correction ... **51**

Deduction for superstructures ... **64**

Sheer correction ... **57**

Round of Beam correction ... **-**

Correction for Thickness of Deck amidships ... **-**

Other corrections, scantlings, etc. ... **-**

+	-
51	64
57	-
-	-
-	-
-	-
108	65

255

255

Summer Freeboard = **298m/-**

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

Tropical Fresh Water Line above Centre of Disc **4m**

Fresh Water Line " **4m**

Tropical Line " **4m**

Winter Line below " **4m**

Winter North Atlantic Line " **4m**

Tropical Fresh Water Freeboard **0' - 11 3/4"**

Fresh Water " **0' - 7 3/4"**

Tropical " **0' - 9 3/4"**

Winter " **1' - 1 3/4"**

Winter North Atlantic " **1' - 1 3/4"**

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.

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £.....

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Foundation