

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

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

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having _____

 Port of Survey Gothenburg

(Type of Superstructures.)

 Date of Survey 14. 8. 33.

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

5/5 BIFROST.
Swedish.
Gothenburg
1923.

 Name of Surveyor E. Hjeringst.

 Moulded Dimensions: Length 260'

 Breadth 37.5'

 Depth 18.58'

Moulded displacement at moulded draught = 85 per cent. of moulded depth

3367

tons

Coefficient of fineness for use with Tables

.765.

 Particulars of Classification +100 A.1.

Depth for Freeboard (D)

Moulded depth

Stringer plate

Sheathing on exposed deck

$$T \left(\frac{L-S}{L} \right) =$$

Depth for Freeboard (D) =

18.63

Depth correction

 (a) Where D is greater than Table depth
 (D—Table depth) R =

+2.60" ✓

 (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)

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

Ship's Round of Beam =

Difference

Restricted to

$$\text{Correction} = \frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L} \right) = -0.04" \checkmark$$

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					
" overhang aft					
" overhang forward					
F'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total					

Standard Height of Superstructure

" " R.Q.D.

 Deduction for complete superstructure 32.00

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

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

 " " $\frac{E}{L} = 68.02\%$

 Percentage from Table, Line A. Timber 80.31% ^{.38}
 (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 = 32.00 × .8031 = -25.70 ^{.72}

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.		1				1	
$\frac{1}{6}$ L from A.P.		4				4	
$\frac{2}{6}$ L "		2				2	
Amidships		4				4	
$\frac{2}{6}$ L from F.P.		2				2	
$\frac{1}{6}$ L "		4				4	
F.P.		1				1	
Total							

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = -0.90" \checkmark$$

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.

R.Q. Ft.

 Depth to Freeboard Deck = 22.63

 Summer freeboard = 5.04

 Moulded draught (d) = 17.59

Deduction for Tropical freeboard and addition for

 Winter freeboard = $\frac{d}{4}$ inches = 4.40 = 112%

Addition for Winter North Atlantic Freeboard (if

 required) = $\frac{d}{3} = 5.86 = 149\%$

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

= 112%

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

36.55

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

 Other corrections, scantlings, etc. R.Q.D. height

	+	-
Depth Correction	<u>2.60</u>	<u>- .72</u>
Deduction for superstructures	<u>-</u>	<u>25.70</u>
Sheer correction	<u>-</u>	<u>.90</u>
Round of Beam correction	<u>-</u>	<u>.04</u>
Correction for Thickness of Deck amidships	<u>-</u>	<u>-</u>
Other corrections, scantlings, etc. <u>R.Q.D. height</u>	<u>48.00</u>	<u>- .66</u>
	<u>50.60</u>	<u>26.64</u>

 Summer Freeboard = 60.51 ^{.49}

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

 Tropical Fresh Water Line above Centre of Disc ... 38.97%

 " Fresh Water Line " " ... 27.77%

 " Tropical Line " " ... 27.77%

 " Winter Line below above, " " ... 16%

 " Winter North Atlantic Line " below, " " ... 160%

 " Summer line above centre of disc ... 165%

 Tropical Fresh Water Freeboard ... 1537%

 " Fresh Water " " ... 1313%

 " Tropical " " ... 1425%

 " Winter " " ... 1485%

 " Winter North Atlantic " " ... 1686%

 " Summer " " ... 1862%