

TIMBER
Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

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

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having POOP ; BRIDGE ; FORECASTLE

Port of Survey _____

(Type of Superstructures.)

Date of Survey 13-8-32

Ship's Name

Nationality and Port of Registry
SWEDISH
GOTHENBURG.

Official Number

6140

Gross Tonnage

4107

Date of Build

1919-6

Name of Surveyor _____

Moulded Dimensions: Length 355.21 Breadth 50.5 Depth 28.17
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons
Coefficient of fineness for use with Tables 0.00

Particulars of Classification _____

Depth for Freeboard (D)

Moulded depth

Stringer plate

Sheathing on exposed deck

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

Depth for Freeboard (D) = 28.21

Depth correction

(a) Where D is greater than Table depth
(D—Table depth) R = (+) 12.37

(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)

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

$$\text{Ship's Round of Beam} =$$

Difference

Restricted to

$$\text{Correction} = \frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = (-) .06$$

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					
„ enclosed					
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total					

Standard Height of Superstructure _____

„ „ R.Q.D. _____

Deduction for complete superstructure 39.01

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

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

$$\frac{E}{L} = 41.29$$

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

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63.80

Percentage from Table, Line B.
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

$$\text{Deduction} = .638 \times 39.01 = 24.89$$

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							

$$\frac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}} =$$

$$\frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}} =$$

$$\frac{\text{Length of enclosed superstructure}}{L} \text{ forward of amidships} =$$

$$\text{„ „ aft of „} =$$

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = (+) .31$$

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.

$$\text{Depth to Freeboard Deck} = \text{Ft. } 28.21$$

$$\text{Summer freeboard} = 4.24$$

$$\text{Moulded draught (d)} = 23.97$$

Deduction for Tropical freeboard

$$= \frac{d}{4} \text{ inches} = 5.99$$

Addition for Winter Freeboard

$$= \frac{d}{3} = 7.99$$

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 9880$$

Tons per inch immersion at summer load water line

$$T = 34.51$$

$$\text{Deduction} = \frac{\Delta}{40 T} \text{ inches} = 6.58$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

+	-
<u>12.37</u>	
	<u>24.89</u>
<u>.31</u>	
	<u>.06</u>
<u>12.68</u>	<u>24.95</u>

$$\text{Summer Freeboard} = 50.86$$

TIMBER SUMMER FREEBOARD amidships from top of Deck Line, Steel, Deck:—

TIMBER	Tropical Fresh Water Line above Centre of Disc	... 672.74
„	Fresh Water Line	... 520.00
„	Tropical Line	... 505.00
„	Winter Line	... 150.00
„	Winter North Atlantic Line	... 141.00

TIMBER	Tropical Fresh Water Freeboard	... 943
„	Fresh Water	... 1125
„	Tropical	... 1140
„	Winter	... 1495
„	Winter North Atlantic	... 1786