

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

Index. No. 2842
(For London Office only.)

14. CL

Foremast
Bridge having Poop, Bridge & 3' cle
Bric
200
Computation of Freeboard for Steamer, Sailing Ship, Tanker
(Type of Superstructures.)
Port of Survey Newcastle on Ty
Date of Survey 2nd May 1932
Name of Surveyor
Ship's Name ZELO
Nationality and Port of Registry British Newcastle
Official Number 145457
Gross Tonnage 2294
Date of Build 1921/10
Moulded Dimensions: Length 307.16 Breadth 42.75 Depth 22.0
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons
Coefficient of fineness for use with Tables
Particulars of Classification + 100 A.1

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ...	(a) Where D is greater than Table depth (D - Table depth) R =	Moulded Breadth (B)
Stringer plate ...	+ 3.71	Standard Round of Beam = $\frac{B \times 12}{50}$ =
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Ship's Round of Beam =
Depth for Freeboard (D) = 22.05	If restricted by superstructures	Difference
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...						Standard Height of Superstructure
„ overhang ...						„ „ R.Q.D.
R.C.D. enclosed ...						Deduction for complete superstructure 35.81
„ overhang ...						Percentage covered $\frac{S}{L} =$
Bridge enclosed ...						„ „ $\frac{S_1}{L} =$
„ overhang aft ...						„ „ $\frac{E}{L} = 38.58\%$
„ overhang forward ...						Percentage from Table, Line A.
„ enclosed ...						(corrected for absence of forecastle (if required))
„ overhang ...						Percentage from Table, Line B. TIMBER 61.47%
Trunk aft ...						(corrected for absence of forecastle (if required))
„ forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...						Deduction = 35.81 x .6147 = - 22.01
„ „ forward						
Total ...						

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product	
A.P. ...		1				1		Mean actual sheer aft =
$\frac{1}{4}$ L from A.P. ...		4				4		Mean standard sheer aft =
$\frac{3}{4}$ L „ ...		2				2		Mean actual sheer forward =
Amidships ...		4				4		Mean standard sheer forward =
$\frac{3}{4}$ L from F.P. ...		2				2		Length of enclosed superstructure forward of amidships =
$\frac{1}{4}$ L „ ...		4				4		„ „ „ aft of „ =
F.P. ...		1				1		
Total ...								

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

If limited on account of midship superstructure.

- .98"

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 = 22.05
Summer freeboard = 2.29
Moulded draught (d) = 19.76

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 4.94 = 5"
Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} = 6.59 = 6 1/2$ "

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 5476$
Tons per inch immersion at summer load water line
 $T = 25.90$
Deduction = $\frac{\Delta}{40T}$ inches = 5.29 = 5 1/4"

TABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for coefficient

	+	-
Depth Correction ...	3.71	✓
Deduction for superstructures ...	✓	22.01
Sheer correction ...	✓	.98
Round of Beam correction ...	✓	.04
Correction for Thickness of Deck amidships ...	✓	
Other corrections, scantlings, etc. ...	✓	

3.71 23.03 - 19.32
Summer Freeboard = 27.53

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

9 - MAY 1932	TIMBER Tropical Fresh Water Line above Centre of Disc ... 23"	TIMBER Tropical Fresh Water Freeboard ... 1' - 5 1/4"
	" Fresh Water Line " " ... 18"	" Fresh Water " " ... 1' - 10 1/4"
	" Tropical Line " " ... 17 3/4"	" Tropical " " ... 1' - 10 1/2"
	" Winter Line " " ... 6 1/4"	" Winter " " ... 2' - 10"
	" Winter North Atlantic Line " " ... 6 3/4"	" Winter North Atlantic " " ... 3' - 11"

TIMBER SUMMER ABOVE " 12 3/4"

Timber freeboards not marked
see Note letter 8/10/32

Lloyd's Register
Foundation