

TIMBER DK CARGO
 Unadjusted Computations
Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Index. No. **33386**
 (For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker
 having **Poop, Bridge & F'cle**

Port of Survey **Fredrikstad**

Date of Survey **3/10/32**

Name of Surveyor

Particulars of Classification **+ 100 A.1**

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
OTHANDER	Norwegian Fredrikstad		1873	1917/9

Moulded Dimensions: Length **251** Breadth **43.5** Depth **20.37**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **4326** tons

Coefficient of fineness for use with Tables **.801**

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth	(a) Where D is greater than Table depth (D - Table depth) R = + 7.11	Moulded Breadth (B)
Stringer plate	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50}$ =
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam =
Depth for Freeboard (D) = 20.41		Difference
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) =$ - .21

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 **31.10**

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

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

" " $\frac{E}{L} =$ **46.66%**

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

Percentage from Table, ~~Line B.~~ **TIMBER** **67.16%**
 (corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **31.10 x .6716 = - 20.88**

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									

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

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 " =

+ .44

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.

Ft.
 Depth to Freeboard Deck = **20.41**
 Summer freeboard = **1.81**
 Moulded draught (d) = **18.60**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **4.65 = 4 $\frac{3}{4}$**

Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} = 6.20 = 6 $\frac{1}{4}$ = **159**$

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 = $\frac{\Delta}{40 T}$ inches = **4 $\frac{3}{4}$**
= 121

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

	+	-
Depth Correction	7.11	✓
Deduction for superstructures	20.88	✓
Sheer correction	44	✓
Round of Beam correction	21	✓
Correction for Thickness of Deck amidships	✓	✓
Other corrections, scantlings, etc.	✓	✓
	7.55	21.09

Summer Freeboard = **21.86**

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

TIMBER Tropical Fresh Water Line above Centre of Disc

" Fresh Water Line	" "	19 $\frac{1}{4}$ = 490
" Tropical Line	" "	14 $\frac{1}{2}$ = 369
" Winter Line	" "	14 $\frac{1}{2}$ = 369
" Winter North Atlantic Line below	" "	5 = 127
" SUMMER ABOVE	" "	9 $\frac{3}{4}$ = 248

1 - 9 $\frac{3}{4}$ = 552
1 - 0 $\frac{1}{4}$ = 310
1 - 5 = 431
1 - 5 = 431
2 - 4 = 711
3 - 0 $\frac{1}{2}$ = 927

