

TIMBER WNA
Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.Index. No. 24613
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey
having <u>Poop, Bridge, Forecastle</u>					Date of Survey <u>June 15th 1932</u>
(Type of Superstructures.)					Name of Surveyor
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build	Particulars of Classification
<u>INGARO</u>	<u>Swedish</u> <u>Stockholm</u>	<u>4367</u>	<u>1995</u>	<u>1916/6</u>	<u>+100A1.</u>
Moulded Dimensions: Length	adth	Depth			
Moulded displacement at moulded draught = 8	ent. of moulded depth	tons			
Coefficient of fineness for use with Tables	<u>790</u>				

Depth for Freeboard (T)		Depth correction	Round of Beam correction
Moulded depth ...		(a) Where D is greater than Table depth (D - Table depth) R = <u>4.67</u>	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) = <u>20.82</u>			Difference
			Restricted to
			Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = - .61$

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.Q.D. enclosed ...						Deduction for complete superstructure <u>33.97</u>
" overhang ...						Percentage covered $\frac{S}{L} = 42.18$
Bridge enclosed ...						" $\frac{S_1}{L} = 42.18$
" overhang aft ...						" $\frac{E}{L} = 42.18$
" overhang forward						Percentage from Table, Line A. (corrected for absence of forecastle (if required))
F'cle enclosed ...						Percentage from Table, Line B. <u>Timber 64.36</u> (corrected for absence of forecastle (if required))
" overhang ...						Interpolation for bridge less than 2L (if required)
Trunk aft ...						Deduction = <u>21.86</u>
" forward ...						
Tonnage opening aft ...						
" forward						
Total ...						

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.

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.

$$\begin{aligned}\text{Depth to Freeboard Deck} &= 20.82 \\ \text{Summer freeboard} &= 1.98 \\ \text{Moulded draught (d)} &= 18.84\end{aligned}$$

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 4.71 = 120

Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} = 6.28 = 160$

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 5065$$

Tons per inch immersion at summer load water line

$$T = 23.80$$

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

$$5.32 = 135$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction ...	<u>4.67</u>	
Deduction for superstructures ...		<u>21.86</u>
Sheer correction ...		<u>.21</u>
Round of Beam correction ...		<u>.61</u>
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		

Summer Freeboard = 23.77

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 " " ...

" Tropical Line " " ...

" Winter Line below above " " ...

" Winter North Atlantic Line " " ...

" SUMMER above " " ...

Tropical Fresh Water Freeboard ...

" Fresh Water " " ...

" Tropical " " ...

" Winter " " ...

" Winter North Atlantic " " ...

RECEIVED