

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *Raised Quarter deck, Bridge, Forecastle*

(Type of Superstructures.)

Port of Survey

Date of Survey *10-5-32*

Name of Surveyor

Particulars of Classification

Ship's Name *1/2 "AINA"*

Nationality and Port of Registry

Gross Tonnage

Date of Build

Moulded Dimensions: Length *229.3* Breadth *34.75* Depth *18.29*

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

Coefficient of fineness for use with Tables *769*

Depth for Freeboard (D)

Moulded depth ...

Stringer plate ...

Sheathing on exposed deck

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

Depth for Freeboard (D) = *18.33*

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = *5.36*

(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)

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

Ship's Round of Beam =

Difference

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ *0.01*

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 *28.93*

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

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

" " $\frac{E}{L} =$ *58.81*

Percentage from Table, Line A.
(corrected for absence of fore-castle (if required))

Percentage from Table, Line B.
(corrected for absence of fore-castle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = *.7475 x 28.93 = 21.63*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...		1					1		
1/4 L from A.P. ...		4					4		
1/2 L " ...		2					2		
Amidships ...		4					4		
3/4 L from F.P. ...		2					2		
1/4 L " ...		4					4		
F.P. ...		1					1		
Total ...									

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 " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ *0.12*

If limited on account of midship superstructure,

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.

AT MARKING

Depth to Freeboard Deck = *18.54*

Summer freeboard = *1.35*

Moulded draught (d) = *17.19*

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = *4.30*

Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} =$ *5.73*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$ *3040*

Tons per inch immersion at summer load water line

T = *16.5*

Deduction = $\frac{\Delta}{40 T}$ inches = *4.61*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ... *5.36*

Deduction for superstructures ... *21.63*

Sheer correction ... *1.12*

Round of Beam correction ... *.01*

Correction for Thickness of Deck amidships ... *2.50*

Other corrections, scantlings, etc. R.Q.D. Aft ... *1.88*

Summer Freeboard = *16.21*

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

TIMBER	Tropical Fresh Water Line above Centre of Disc	<i>366.74</i>	TIMBER	Tropical Fresh Water Freeboard	<i>186</i>
"	Fresh Water Line	<i>257.14</i>	"	Fresh Water	<i>295</i>
"	Tropical Line	<i>249.14</i>	"	Tropical	<i>303</i>
"	Winter Line below	<i>6.14</i>	"	Winter	<i>558</i>
"	Winter North Atlantic Line	<i>217.14</i>	"	Winter North Atlantic	<i>769</i>

5m. 3.32

SUMMER ABOVE " *140*