

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

Index. No. 34988
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker				
having: <u>a raised quarter deck and forecastle</u>				
(Type of Superstructures.)				
Ship's Name <u>Springwood</u>	Nationality and Port of Registry <u>British London</u>	Official Number	Gross Tonnage	Date of Build <u>1936</u>
Moulded Dimensions: Length <u>220</u> Breadth <u>36</u> Depth <u>16</u>			Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>2203</u> tons	
Coefficient of fineness for use with Tables <u>716</u>			Name of Surveyor	
			Particulars of Classification <u>+100A1</u> <u>(Contemplated)</u>	

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth	(a) Where D is greater than Table depth (D - Table depth) R = <u>+ 2.30</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) =		Difference
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right)$ = <u>- .03</u>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>on R.Q.D.</u>				
" overhang ...					
R.Q.D. enclosed ...	<u>135.48</u>		<u>4.0</u>		
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
Fore enclosed <u>open</u> ...	<u>21.27</u>		<u>7.0</u>		
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...					

Standard Height of Superstructure 6.00

" " R.Q.D. 3.8

Deduction for complete superstructure 28

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

" " $\frac{S_1}{L} =$ } 71.25

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

Percentage from Table, Line A. Timber 82.25
(corrected for absence of forecastle (if required))

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

Interpolation for bridge less than 2L (if required)

Deduction = 28 × .8225 = - 23.03

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 ...									

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 = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ - .62

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p style="text-align: center;"><u>R.Q.</u></p> <p>Depth to Freeboard Deck = <u>20.03</u> Ft.</p> <p>Summer freeboard = <u>4.50</u></p> <p>Moulded draught (d) = <u>15.53</u></p> <p><u>3.88 = 4</u></p> <p>Deduction for Tropical freeboard <u>and addition for</u></p> <p><u>Winter freeboard</u> = $\frac{d}{3.4}$ inches = <u>5.18 = 5 1/4</u></p> <p>Addition for Winter North Atlantic Freeboard (if required) =</p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>$\Delta =$ <u>2550</u></p> <p>Tons per inch immersion at summer load water line</p> <p>$T =$ <u>14.62</u></p> <p>Deduction = $\frac{\Delta}{40T}$ inches</p> <p>= <u>4.36 = 4 3/4</u></p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>+</th> <th>-</th> </tr> </thead> <tbody> <tr> <td>Depth Correction ...</td> <td><u>2.30</u></td> <td></td> </tr> <tr> <td>Deduction for superstructures ...</td> <td></td> <td><u>23.03</u></td> </tr> <tr> <td>Sheer correction ...</td> <td></td> <td><u>.62</u></td> </tr> <tr> <td>Round of Beam <u>sheer</u> <u>raised quarter</u> ...</td> <td></td> <td><u>.03</u></td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc. ...</td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>50.30</u></td> <td><u>23.68</u></td> </tr> </tbody> </table> <p style="text-align: right;">Summer Freeboard = <u>53.93</u></p>		+	-	Depth Correction ...	<u>2.30</u>		Deduction for superstructures ...		<u>23.03</u>	Sheer correction ...		<u>.62</u>	Round of Beam <u>sheer</u> <u>raised quarter</u> ...		<u>.03</u>	Correction for Thickness of Deck amidships ...			Other corrections, scantlings, etc. ...				<u>50.30</u>	<u>23.68</u>
	+	-																								
Depth Correction ...	<u>2.30</u>																									
Deduction for superstructures ...		<u>23.03</u>																								
Sheer correction ...		<u>.62</u>																								
Round of Beam <u>sheer</u> <u>raised quarter</u> ...		<u>.03</u>																								
Correction for Thickness of Deck amidships ...																										
Other corrections, scantlings, etc. ...																										
	<u>50.30</u>	<u>23.68</u>																								

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel Deck:—			
<u>Timber</u>	Tropical Fresh Water Line above Centre of Disc ...	Tropical Fresh Water Freeboard ...	4'-6"
	Fresh Water Line " " ...	Fresh Water " " ...	3'-9 3/4"
	Tropical Line " " ...	Tropical " " ...	4'-1 3/4"
	Winter Line below " " ...	Winter " " ...	4'-2"
	Winter North Atlantic Line " " ...	Winter North Atlantic " " ...	4'-11 1/4"
			5'-4 3/4"

24 JUL 1936

5m, 9.32.

Summer above

002109-002118-0224

RECEIVED

23 JUL 1936

RECEIVED

MARKING FORM

Lloyd's Register

Foundation

2020

3-934

4-134

4-2

4-11 1/4

5-4 3/4

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11

5-11