

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker				
<div> <div>having</div> <div>with top gallant forecastle, having raised quarter deck connected with bridgehouse.</div> </div>				
(Type of Superstructures.)				
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"HANNAH."	Swedish Helsingborg.	4405	1197	1898-8
Moulded Dimensions: Length 230.0'		Breadth 34.0'	Depth 16.75'	
Moulded displacement at moulded draught = 85 per cent. of moulded depth			2390	tons
Coefficient of fineness for use with Tables		.751		

Port of Survey

Date of Survey 7<sup>th</sup> Nov. 32

Name of Surveyor

Particulars of Classification 1-100 A1.

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... ..	(a) Where D is greater than Table depth	Moulded Breadth (B)
Striker plate ... ..	(D-Table depth) R = + 2.58	Standard Round of Beam = $\frac{B \times 12}{50} =$
Heating on exposed deck	(b) Where D is less than Table depth (if allowed)	Ship's Round of Beam =
$T \left( \frac{L-S}{L} \right) =$	(Table depth-D) R =	Difference
Depth for Freeboard (D) = <u>16.79</u>	If restricted by superstructures	Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = - . 03$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	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 6.0

" " R.Q.D. 3.867

Deduction for complete superstructure 29.00

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

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

" "  $\frac{E}{L} = 69.56\%$

Percentage from Table, Line A. TIMBER 81.24

(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 =  $29.00 \times .8124 = (-) 23.56$

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

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

" "  $\frac{E}{L} = 69.56\%$

Percentage from Table, Line A.

(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 =  $29.00 \times .8124 = (-) 23.56$

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 =  $\frac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}} = \text{Excess}$

Mean actual sheer forward =  $\frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}} = \text{Excess}$

Length of enclosed superstructure forward of amidships =  $\frac{\text{Length of enclosed superstructure}}{L}$

" " aft of " =

RETAIN

better of 10/11/32

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = - .78$

If limited on account of midship superstructure.

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

<p><b>Deduction for Tropical Freeboard.</b></p> <p><b>Addition for Winter and Winter North Atlantic Freeboard.</b></p> <p>Depth to Freeboard Deck = 16.79</p> <p>Summer freeboard = 68</p> <p>Moulded draught (d) = 16.11</p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = <math>\frac{d}{4}</math> inches = 4.03 = 1024</p> <p>Addition for Winter North Atlantic Freeboard (if required) = <math>\frac{16.11}{3} = 5.37 = 1364</math></p>	<p><b>Deduction for Fresh Water.</b></p> <p>Displacement in salt water at summer load water line</p> <p><math>\Delta =</math></p> <p>Tons per inch immersion at summer load water line</p> <p>T =</p> <p>Deduction = <math>\frac{\Delta}{40}</math> inches = 1024</p>	<p><b>TABULAR FREEBOARD</b> 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 style="text-align: center;">+</th> <th style="text-align: center;">-</th> </tr> </thead> <tbody> <tr> <td>Depth Correction ...</td> <td style="text-align: center;">2.58</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Deduction for superstructures ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">23.56</td> </tr> <tr> <td>Sheer correction ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">.78</td> </tr> <tr> <td>Round of Beam correction ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">.03</td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Other corrections, scantlings, etc. ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td></td> <td style="text-align: center;">2.58</td> <td style="text-align: center;">24.37</td> </tr> </tbody> </table> <p>Summer Freeboard = 8.2</p>		+	-	Depth Correction ...	2.58	-	Deduction for superstructures ...	-	23.56	Sheer correction ...	-	.78	Round of Beam correction ...	-	.03	Correction for Thickness of Deck amidships ...	-	-	Other corrections, scantlings, etc. ...	-	-		2.58	24.37
	+	-																								
Depth Correction ...	2.58	-																								
Deduction for superstructures ...	-	23.56																								
Sheer correction ...	-	.78																								
Round of Beam correction ...	-	.03																								
Correction for Thickness of Deck amidships ...	-	-																								
Other corrections, scantlings, etc. ...	-	-																								
	2.58	24.37																								

3  
 8 NOV 1955  
 Timber Summer Freeboard amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:— 8.20 = 208 1/2  
 Timber Tropical Fresh Water Line above Centre of Disc ... 344 1/2 Timber Tropical Fresh Water Freeboard ... 106 1/2  
 " Fresh Water Line " " ... 242 1/2 " Fresh Water " " ... 106 1/2  
 " Tropical Line " " ... 242 1/2 " Tropical " " ... 344 1/2  
 " Winter Line below above, " " ... 41 1/2 " Winter " " ... 498 1/2  
 " Winter North Atlantic Line below " " ... 150 1/2 " Winter North Atlantic " " ...  
 5m, 3.32. Timber Summer line above C of Disc = 140 1/2 W405-0193