

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker				
having	<div style="border-bottom: 1px solid black; display: inline-block; width: 100%;"> <i>CS Sailing Tonnage</i> </div> <div style="border-bottom: 1px solid black; display: inline-block; width: 100%;"> <i>(Proposal No 3)</i> </div>			
(Type of Superstructures.)				
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<div style="border-bottom: 1px solid black; display: inline-block; width: 100%;"> <i>NIEUWERK</i> </div>				
Moulded Dimensions: Length <i>442.83</i> Breadth <i>59.25</i> Depth <i>31.00</i> Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>13660</i> tons Coefficient of fineness for use with Tables <i>.692</i>				

Port of Survey _____
Date of Survey _____
Name of Surveyor _____
Particulars of Classification _____

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	31.00	(a) Where D is greater than Table depth		Moulded Breadth (B)	31.00
Stringer plate	.04	(D-Table depth) R =	$(31.04 - 29.52) 3.00$	Standard Round of Beam = $\frac{B \times 12}{50} =$	7.44"
Sheathing on exposed deck			$= + 4.56"$	Ship's Round of Beam	= 1"
$T \left(\frac{L-S}{L} \right) =$		(b) Where D is less than Table depth (if allowed)		Difference	6.44 difference
		(Table depth-D) R =		Restricted to	
Depth for Freeboard (D) =	31.04	If restricted by superstructures		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) =$	$\frac{6.44}{4} \times .0076 = +.01$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	18.00	18.00			18.00
" overhang...	2.71	1.35			1.35
R.Q.D. enclosed					
" overhang					
Bridge enclosed...	416.77	416.77			416.77
" overhang aft ...					
" overhang forward					
F'cle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	5.33	3.35			3.35
" " forward					
Total ...	442.83	439.47			439.47

Standard Height of Superstructure 7' - 6"

" " R.Q.D. ✓

Deduction for complete superstructure 42.00

Percentage covered $\frac{S}{L} = 100\%$

" " $\frac{S_1}{L} = 99.24\%$

" " $\frac{E}{L} = 99.24\%$

Percentage from Table, Line A.
(corrected for absence of forecastle (if required)) 99.05%

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

Interpolation for bridge less than $\cdot 2L$ (if required)

Deduction = $42.00 \times .9905 = -41.60"$

SHEER CORRECTION.

Station	Standard Ordnate	S M	Product	Actual Ordnate	Effective Ordnate	S M	Product
A.P. ...	54.28	1		54.00	54.00	1	54.00
$\frac{1}{8}$ L from A.P. ...	24.15	4		28.38	28.38	4	113.52
$\frac{2}{8}$ L " ...	5.97	2		2.50	2.50	2	5.00
Amidships ...	✓	4		✓		4	✓
$\frac{3}{8}$ L from F.P. ...	11.94	2		27.00	27.00	2	54.00
$\frac{1}{8}$ L " ...	48.30	4		75.25	75.25	4	301.00
F.P. ...	108.56	1		123.25	123.25	1	123.25
Total ...			488.52				650.77

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{8}{2L} \right) = \frac{162.25}{18} \times .25 = - 2.25$$

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>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>△ =</p> <p>Tons per inch immersion at summer load water line</p> <p>T =</p> <p>Deduction = $\frac{\Delta}{40 T}$ inches</p> <p>=</p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient</p> <p>Depth Correction</p> <p>Deduction for superstructures</p> <p>Sheer correction</p> <p>Round of Beam correction</p> <p>Correction for Thickness of Deck amidships</p> <p>Other corrections, scantlings, etc.</p>																								
<p style="text-align: right;">Ft.</p> <p>Depth to Freeboard Deck = 31.04</p> <p>Summer freeboard = 3.85</p> <p>Moulded draught (d) = 27.19</p>		<p>$\frac{-692 + .68}{1.26} = \frac{1372}{1360}$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;"></th> <th style="width: 50%; text-align: center;">+</th> <th style="width: 50%; text-align: center;">-</th> </tr> <tr> <td>Depth Correction</td> <td style="text-align: center;">4.56</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;">41.60</td> </tr> <tr> <td>Sheer correction</td> <td style="text-align: center;">-</td> <td style="text-align: center;">2.25</td> </tr> <tr> <td>Round of Beam correction</td> <td style="text-align: center;">.01</td> <td style="text-align: center;">-</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;">4.57</td> <td style="text-align: center;">43.85 - 39.28</td> </tr> </table> <p style="text-align: right;">Summer Freeboard = 46.36</p>		+	-	Depth Correction	4.56	-	Deduction for superstructures	-	41.60	Sheer correction	-	2.25	Round of Beam correction01	-	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-		4.57	43.85 - 39.28
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :—

Tropical Fresh Water Line above Centre of Disc
Fresh Water Line	"	"
Tropical Line	"	"
Winter Line below	"	"
Winter North Atlantic Line	"	"

Tropical Fresh Water Freeboard ...	1.5	...
Fresh Water	"	...
Tropical	"	...
Winter	"	...
Winter North Atlantic	"	...