

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having CS 2nd Tonnage opening
(Proposed No 3)
(Type of Superstructures.)

Port of Survey _____

Date of Survey _____

Name of Surveyor _____

Particulars of Classification _____

Ship's Name <u>NIEUWKERK</u>	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
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Moulded Dimensions: Length 442.83 Breadth 59.25 Depth 31.00
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 13660 tons
 Coefficient of fineness for use with Tables .692

<p>Depth for Freeboard (D)</p> <p>Moulded depth 31.00</p> <p>Stringer plate04</p> <p>Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$</p> <p>Depth for Freeboard (D) = <u>31.04</u></p>	<p>Depth correction</p> <p>(a) Where D is greater than Table depth $(D - \text{Table depth}) R = (31.04 - 29.52) 3.00$ $= + 4.56''$</p> <p>(b) Where D is less than Table depth (if allowed) (Table depth - D) R =</p> <p>If restricted by superstructures</p>	<p>Round of Beam correction</p> <p>Moulded Breadth (B) <u>31.00</u></p> <p>Standard Round of Beam = $\frac{B \times 12}{50} = 7.44''$</p> <p>Ship's Round of Beam = <u>1''</u></p> <p>Difference <u>6.44</u> deficient</p> <p>Restricted to</p> <p>Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{6.44}{4} \times .6076 = +.01''$</p>
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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	5.35	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 2L (if required)

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

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	54.28	1			54.00	54.00	1		54.00
$\frac{1}{2}L$ from A.P.	24.15	4			28.38	28.38	4		113.52
$\frac{3}{8}L$ "	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
$\frac{1}{2}L$ "	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

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

If limited on account of midship superstructure. If limited to maximum allowance of 1 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;">Ft.</p> <p>Depth to Freeboard Deck = <u>31.04</u></p> <p>Summer freeboard = <u>3.85</u></p> <p>Moulded draught (d) = <u>27.19</u></p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>6</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>$\Delta =$</p> <p>Tons per inch immersion at summer load water line</p> <p>T = _____</p> <p>Deduction = $\frac{\Delta}{40T}$ inches = _____</p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient $\frac{.692 + .68}{1.26} = \frac{1.372}{1.360}$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">+</td> <td style="width: 50%; text-align: center;">-</td> </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</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">- 39.28</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">Summer Freeboard = <u>46.36</u></td> </tr> </table>		+	-	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			Summer Freeboard = <u>46.36</u>	
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :- 46.36" = 118 cms

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

