

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <i>Smit and Zoon</i> <i>179-183</i>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <i>108.2</i> Breadth <i>20.32</i> Depth <i>9.66</i>					Date of Survey <i>29.3.17</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature _____
Coefficient of fineness for use with Tables <i>68.5m</i>					Particulars of Classification <i>Contingent</i>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth <i>9.66</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(9.71-9.66) x 32 = 2.05</i>	Moulded Breadth (B) <i>20.32</i>
Stringer plate <i>03</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <i>2.58</i>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{20.32 \times 12}{50} = 4.88$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = \frac{2}{12} \times 6016 = 10$	If restricted by superstructures	Ship's Round of Beam = <i>4.92</i>
17 Depth for Freeboard (D) = <i>9.71</i>		Difference = <i>0.04</i>
		Restricted to
		Correction = $\frac{\text{Diff}^c}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{0.04 \times 26}{4} = 0.11$

DEDUCTION FOR SUPERSTRUCTURES.					Standard Height of Superstructure <i>6.0</i>
Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	R.Q.D. <i>16.82</i>
Poop enclosed					Deduction for complete superstructure
" overhang					Percentage covered $\frac{S}{L} =$
R.Q.D. enclosed					" $\frac{S_1}{L} = 39.74$
" overhang					" $\frac{E}{L} =$
Bridge enclosed					Percentage from Table, Line A. <i>23.28</i>
" overhang aft					(corrected for absence of forecastle (if required))
" overhang forward					Percentage from Table, Line B.
Fore enclosed <i>43</i>	<i>43</i>	<i>7.4</i>	<i>-</i>	<i>43</i>	(corrected for absence of forecastle (if required))
" overhang		<i>6.5</i>			Interpolation for bridge less than 2L (if required)
Trunk aft					Deduction = <i>16.82 x 23.28 = -3.92</i>
" forward					
Tonnage opening aft					
" " forward					
Total <i>43</i>	<i>43</i>			<i>43</i>	

SHEER CORRECTION.							
Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	<i>20.82</i>	1		<i>22</i>	<i>20.82</i>	1	<i>20.82</i>
$\frac{1}{8}L$ from A.P.	<i>9.27</i>	4		<i>10</i>	<i>9.27</i>	4	<i>37.08</i>
$\frac{2}{8}L$ "	<i>2.29</i>	2		<i>4</i>	<i>2.29</i>	2	<i>4.58</i>
Amidships		4				4	
$\frac{3}{8}L$ from F.P.		2		<i>3</i>		2	<i>6-</i>
$\frac{4}{8}L$ "		4		<i>14</i>		4	<i>56-</i>
F.P.	<i>41.64</i>	1		<i>33</i>		1	<i>33-</i>
Total			<i>87.38</i>				<i>157.48</i>
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{29.90}{18} \times \left(.75 - \frac{19.87}{55.13} \right) = +.92$							
If limited on account of midship superstructure.							

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient
Depth to Freeboard Deck = <i>9.86</i>	$\Delta =$	Depth Correction <i>2.15</i>
Summer freeboard = <i>.89</i>	Tons per inch immersion at summer load water line	Deduction for superstructures <i>3.92</i>
Moulded draught (d) = <i>8.97</i>	T =	Sheer correction <i>.92</i>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =	Deduction = $\frac{\Delta}{40 T}$ inches =	Round of Beam correction <i>.01</i>
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships <i>.84</i>
		Other corrections, scantlings, etc.
		Summer Freeboard = <i>10.8</i>

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-			
2150	Tropical Fresh Water Line above Centre of Disc	Tropical Fresh Water Freeboard	© 2021 Lloyd's Register Foundation
1850	Fresh Water Line " "	Fresh Water " "	
4000	Tropical Line " "	Tropical " "	
2000	Winter Line below " "	Winter " "	
	Winter North Atlantic Line " "	Winter North Atlantic " "	

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

11-6	1-10	22
10-6	10	10
10-0	4	↓
9-8		
9-11	3	3
10-10	1-2	14
12-7	2-11	32

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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