

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <i>Smit and Zoon</i>	Official Number <i>179-183</i>	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 Jan</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 - 7.21) .832 = 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 = $\frac{B \times 12}{50} = 4.88$
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>
<i>17</i> Depth for Freeboard (D) = <i>9.71</i>		Difference = <i>0.04</i>
		Restricted to _____
		Correction = $\frac{\text{Diff}^c}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{0.04 \times 26}{4} = 0.01$

**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 ... ..					
Fore enclosed ... ..	<i>43</i>	<i>43</i>	<i>7.4</i>	<i>-</i>	<i>43</i>
„ overhang ... ..			<i>6.5</i>		
Trunk aft ... ..					
„ forward ... ..					
Tonnage opening aft ... ..					
„ „ forward ... ..					
Total ... ..	<i>43</i>	<i>43</i>			<i>43</i>

Standard Height of Superstructure	<i>6.0</i>
„ „ R.Q.D.	<i>-</i>
Deduction for complete superstructure	<i>16.82</i>
Percentage covered $\frac{S}{L} =$	
„ „ $\frac{S_1}{L} =$	<i>39.74</i>
„ „ $\frac{E}{L} =$	
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	<i>23.28</i>
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	<i>-</i>
Interpolation for bridge less than 2L (if required)	<i>-</i>
Deduction =	<i>16.82 \times 23.28 = -3.92</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>
$\frac{1}{2}L$ from A.P. ... ..	<i>9.27</i>	4		<i>10</i>	<i>9.27</i>	4	<i>37.08</i>
$\frac{2}{3}L$ „ ... ..	<i>2.29</i>	2		<i>4</i>	<i>2.29</i>	2	<i>4.58</i>
Amidships ... ..		4		<i>-</i>		4	<i>-</i>
$\frac{2}{3}L$ from F.P. ... ..		2		<i>3</i>		2	<i>6</i>
$\frac{1}{2}L$ „ ... ..		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>

Mean actual sheer aft = *6 cms*  
Mean standard sheer aft = \_\_\_\_\_

Mean actual sheer forward = *deft.*  
Mean standard sheer forward = \_\_\_\_\_

Length of enclosed superstructure forward of amidships = \_\_\_\_\_  
L

„ „ aft of „ = \_\_\_\_\_

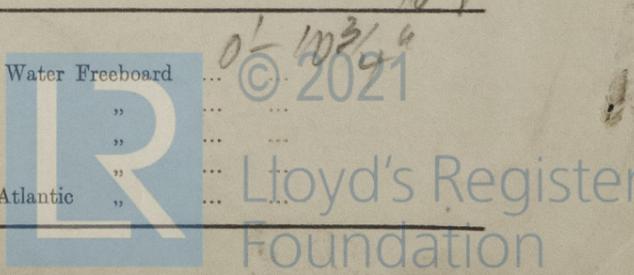
Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{2990}{18} \times \left( .75 - \frac{1987}{5513} \right) = +.92$   
If limited on account of midship superstructure.

<b>Deduction for Tropical Freeboard.</b> Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <i>9.86</i> Summer freeboard = <i>.89</i> Moulded draught (d) = <i>8.97</i> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = _____ Addition for Winter North Atlantic Freeboard (if required) = _____	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line $T =$ Deduction = $\frac{\Delta}{40 T}$ inches = _____	<b>TABULAR FREEBOARD corrected for Flush Deck (if required)</b> Correction for coefficient <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">+</td><td style="text-align: center;">-</td></tr> <tr><td style="text-align: center;"><i>2.15</i></td><td style="text-align: center;"><i>3.92</i></td></tr> <tr><td style="text-align: center;"><i>-.92</i></td><td style="text-align: center;"><i>.01</i></td></tr> <tr><td style="text-align: center;"><i>.84</i></td><td style="text-align: center;"><i>-</i></td></tr> <tr><td style="text-align: center;"><i>3.91</i></td><td style="text-align: center;"><i>3.93</i></td></tr> </table> Summer Freeboard = <i>10.8</i>	+	-	<i>2.15</i>	<i>3.92</i>	<i>-.92</i>	<i>.01</i>	<i>.84</i>	<i>-</i>	<i>3.91</i>	<i>3.93</i>
+	-											
<i>2.15</i>	<i>3.92</i>											
<i>-.92</i>	<i>.01</i>											
<i>.84</i>	<i>-</i>											
<i>3.91</i>	<i>3.93</i>											

**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-**

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 „ „ ... ..

*2150*  
*1850*  
*4000*  
*2000*  
*6.56*



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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Foundation