

Cargo holdboard for scantling purposes only

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <i>Sir J. Cairns</i> <i>No 753</i>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <i>466.25</i> Breadth <i>64'</i> Depth <i>35'-6"</i>					Date of Survey <i>18.11.42</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature _____
Coefficient of fineness for use with Tables <i>.78 (assumed)</i>					Particulars of Classification <i>* 100 A1</i> <i>Cargo holdboard</i>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth <i>35.50</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>+ 13.50 -</i>	Moulded Breadth (B) Standard Round of Beam = $\frac{B \times 12}{50} =$
Stringer plate <i>.07</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Ship's Round of Beam =
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Difference
Depth for Freeboard (D) = <i>35.57</i>		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <i>-.10</i>

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)	
Poop enclosed					Standard Height of Superstructure <i>75</i>
.. overhang R.Q.D. <i>7</i>
R.Q.D. enclosed					Deduction for complete superstructure <i>42</i>
.. overhang					Percentage covered $\frac{S}{L} =$
Bridge enclosed... $\frac{S_i}{L} =$ <i>47.8</i>
.. overhang aft $\frac{E}{L} =$
.. overhang forward					Percentage from Table, Line A. (corrected for absence of forecastle (if required)) <i>30.13</i>
F'cle enclosed					Percentage from Table, Line B. (corrected for absence of forecastle (if required)) <i>34.13</i>
.. overhang					Interpolation for bridge less than 2L (if required) <i>(.098L) 32.13</i>
Trunk aft					Deduction = <i>42 x .3213 = -13.48</i>
.. forward					
Tonnage opening aft ...					
.. .. forward					
Total					

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product	
A.P.		1				1		Mean actual sheer aft =
$\frac{1}{4}L$ from A.P.		4				4		Mean standard sheer aft =
$\frac{2}{8}L$		2				2		} Deficient
Amidships		4				4		
$\frac{3}{8}L$ from F.P.		2				2		Mean actual sheer forward =
$\frac{1}{4}L$		4				4		Mean standard sheer forward =
F.P.		1				1		Length of enclosed superstructure forward of amidships =
Total aft of .. = <i>NIL.</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) =$ *+ 7.82*

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: right;">Ft.</p> <p>Depth to Freeboard Deck = <i>35.57</i></p> <p>Summer freeboard = <i>8.89</i></p> <p>Moulded draught (d) = <i>26.68</i></p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>6.67</i></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) <i>92.14 -</i></p> <p>Correction for coefficient $\frac{787.68}{1.36} = 146/1.36$ <i>98.92 -</i></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th></th> <th style="width:10%;">+</th> <th style="width:10%;">-</th> </tr> <tr> <td>Depth Correction</td> <td><i>13.50</i></td> <td><i>-</i></td> </tr> <tr> <td>Deduction for superstructures</td> <td><i>-</i></td> <td><i>13.48</i></td> </tr> <tr> <td>Sheer correction</td> <td><i>7.82</i></td> <td><i>-</i></td> </tr> <tr> <td>Round of Beam correction... ..</td> <td><i>-</i></td> <td><i>-.10</i></td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td><i>-</i></td> <td><i>-</i></td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td><i>-</i></td> <td><i>-</i></td> </tr> <tr> <td>Summer Freeboard =</td> <td><i>21.32</i></td> <td><i>13.58</i></td> </tr> </table> <p style="text-align: right;"><i>+ 7.74</i></p> <p style="text-align: right;"><i>106.66</i></p>		+	-	Depth Correction	<i>13.50</i>	<i>-</i>	Deduction for superstructures	<i>-</i>	<i>13.48</i>	Sheer correction	<i>7.82</i>	<i>-</i>	Round of Beam correction... ..	<i>-</i>	<i>-.10</i>	Correction for Thickness of Deck amidships	<i>-</i>	<i>-</i>	Other corrections, scantlings, etc.	<i>-</i>	<i>-</i>	Summer Freeboard =	<i>21.32</i>	<i>13.58</i>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :- *8.89*

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 " "

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