

If bridge front openings closed by class 2 appliances

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

Ship's Name JULIA	Official Number	Nationality and Port of Registry <i>Swedish Roa</i>	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <i>310.44</i> Breadth <i>46.33</i> Depth <i>25.16</i>					Date of Survey <i>29/4/46</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth.....tons					Surveyor's Signature
Coefficient of fineness for use with Tables <i>.761</i>					Particulars of Classification <i>+100A1</i>

DEPTH FOR FREEBOARD (D). Moulded depth Stringer plate Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <i>25.19</i>	DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = <i>+10.72</i> (b) Where D is less than Table depth (if allowed) (Table depth-D) R = If restricted by superstructures	ROUND OF BEAM CORRECTION. Moulded Breadth (B) Standard Round of Beam = $\frac{B \times 12}{50} =$ Ship's Round of Beam = Difference Restricted to Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{12}{4} \times .5625 = +.02$
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DEDUCTION FOR SUPERSTRUCTURES.					
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<i>31.21</i>	<i>31.21</i>	<i>7.75</i>	<i>✓</i>	<i>31.21</i>
„ overhang	<i>2.00</i>	<i>1.00</i>			<i>1.00</i>
R.Q.D. enclosed					
„ overhang					
Bridge enclosed	<i>76.00</i>	<i>68.40</i>	<i>9.0</i>	<i>✓</i>	<i>68.40</i>
„ overhang aft	<i>4.00</i>	<i>3.00</i>			<i>3.00</i>
„ overhang forward	<i>2.00</i>	<i>1.00</i>			<i>1.00</i>
F'cle enclosed	<i>31.23</i>	<i>31.23</i>	<i>7.0</i>	<i>✓</i>	<i>31.23</i>
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total	<i>146.44</i>	<i>135.84</i>			<i>135.84</i>

Standard Height of Superstructure <i>6.604</i>
„ „ R.Q.D.
Deduction for complete superstructure <i>36.03</i>
Percentage covered $\frac{S}{L} = 47.17$
„ „ $\frac{S_1}{L} =$
„ „ $\frac{E}{L} = 43.75$
Percentage from Table, Line A. <i>26.68</i> (corrected for absence of forecastle (if required))
Percentage from Table, Line B. <i>30.68</i> (corrected for absence of forecastle (if required))
Interpolation for bridge less than .2L (if required)
Deduction = <i>36.03</i> x <i>30.68</i> = <i>-11.05</i>

SHEER CORRECTION.							
Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.		1				1	
$\frac{1}{8}L$ from A.P.		4				4	
$\frac{2}{8}L$ „		2				2	
Amidships		4				4	
$\frac{2}{8}L$ from F.P.		2				2	
$\frac{1}{8}L$ „		4				4	
F.P.		1				1	
Total							

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = +6.26$
If limited on account of midship superstructure.

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 „ =

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Ft. Depth to Freeboard Deck = Summer freeboard = Moulded draught (d) = Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = Addition for Winter North Atlantic Freeboard (if required)=	Deduction for Fresh Water. 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 =	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{761 + .68}{1.36} = \frac{1.441}{1.36}$ <table><tr><th></th><th>+</th><th>-</th></tr><tr><td>Depth Correction</td><td><i>10.72</i></td><td><i>✓</i></td></tr><tr><td>Deduction for superstructures</td><td><i>-</i></td><td><i>11.05</i></td></tr><tr><td>Sheer correction</td><td><i>6.26</i></td><td><i>-</i></td></tr><tr><td>Round of Beam correction</td><td><i>.02</i></td><td><i>-</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></td><td><i>17.00</i></td><td><i>11.05</i></td></tr><tr><td>Summer Freeboard =</td><td><i>54.70</i></td><td></td></tr></table>		+	-	Depth Correction	<i>10.72</i>	<i>✓</i>	Deduction for superstructures	<i>-</i>	<i>11.05</i>	Sheer correction	<i>6.26</i>	<i>-</i>	Round of Beam correction	<i>.02</i>	<i>-</i>	Correction for Thickness of Deck amidships	<i>-</i>	<i>-</i>	Other corrections, scantlings, etc.	<i>-</i>	<i>-</i>		<i>17.00</i>	<i>11.05</i>	Summer Freeboard =	<i>54.70</i>	
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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				Tropical Fresh Water Freeboard	
Fresh Water Line „ „				Fresh Water „ „	
Tropical Line „ „				Tropical „ „	
Winter Line below „ „				Winter „ „	
Winter North Atlantic Line „ „				Winter North Atlantic „ „	

$4'-6\frac{3}{4}'' = 1391 \text{ mm}$