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Index No. *101*
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <i>Proposed Anglo Saxon Tanker</i>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <i>434.00</i> Breadth <i>62.5</i> Depth <i>24.25</i>					Date of Survey <i>17.10.38</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature _____
Coefficient of fineness for use with Tables <i>.784</i>					Particulars of Classification _____

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth <i>24.25</i>	(a) Where D is greater than Table depth (D-Table depth) R =	Moulded Breadth (B) <i>62.5</i>
Stringer plate <i>.05</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 15$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	<i>(28.93 - 24.30) 3 = -13.89</i> <i>4.63</i>	Ship's Round of Beam = <i>15</i>
Depth for Freeboard (D) = <i>24.30</i>	If restricted by superstructures <i>13.89 x 1/1.5 = -12.96</i>	Difference
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L}\right) = \text{Nil}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<i>107.00</i>	<i>107.00</i>	<i>7.5</i>		<i>107.00</i>
.. overhang					
R.Q.D. enclosed					
.. overhang					
Bridge enclosed... ..					
.. overhang aft					
.. overhang forward					
F'cle enclosed	<i>60.0</i>	<i>60.00</i>	<i>7.5</i>		<i>60.00</i>
.. overhang					
Trunk aft		<i>168.12</i>	<i>7.0</i>	<i>7.0/7.5</i>	<i>156.91</i>
.. forward					
Tonnage opening aft					
.. .. forward					
Total	<i>167.00</i>	<i>335.12</i>			<i>323.91</i>

Standard Height of Superstructure *7.50*

.. .. R.Q.D. _____

Deduction for complete superstructure *42.00*

Percentage covered $\frac{S}{L} = 38.48$

.. .. $\frac{S_1}{L} = 77.21$

.. .. $\frac{E}{L} = 74.64$

Percentage from Table, Line A. *Tanker 68.71*
(corrected for absence of forecastle (if required))

Percentage from Table, Line B.
(corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required)

Deduction = *42 x .6871 = -28.86*

SHEER CORRECTION.

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

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{.2L} \right) = +7.65$
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>Depth to Freeboard Deck = <i>24.30</i> Ft.</p> <p>Summer freeboard = <i>3.52</i></p> <p>Moulded draught (d) = <i>20.78</i></p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>5.19 = 5 1/4</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)</p> <p>Correction for coefficient $\frac{.784 + .68}{1.36} = \frac{1.464}{1.36}$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td></td> <td><i>12.96</i></td> </tr> <tr> <td>Deduction for superstructures</td> <td></td> <td><i>28.86</i></td> </tr> <tr> <td>Sheer correction</td> <td><i>7.65</i></td> <td></td> </tr> <tr> <td>Round of Beam correction</td> <td></td> <td></td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td></td> <td></td> </tr> <tr> <td></td> <td><i>7.65</i></td> <td><i>41.82</i></td> </tr> <tr> <td style="text-align: right;">Summer Freeboard =</td> <td></td> <td><i>42.20</i></td> </tr> </table>		+	-	Depth Correction		<i>12.96</i>	Deduction for superstructures		<i>28.86</i>	Sheer correction	<i>7.65</i>		Round of Beam correction			Correction for Thickness of Deck amidships			Other corrections, scantlings, etc.				<i>7.65</i>	<i>41.82</i>	Summer Freeboard =		<i>42.20</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

