

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

 Index No. 36127
 (For London Office only).

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Ship's Name <i>Alex. Stephens & Sons</i> <i>Yard No. 575/6.</i>	Official Number	Nationality and Port of Registry <i>Greece</i>	Gross Tonnage	Date of Build <i>1940.</i>	Port of Survey
Moulded Dimensions: Length <i>450.77</i> Breadth <i>60.00</i> Depth <i>39.42</i>					Date of Survey <i>6.3.40</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons					Surveyor's Signature
Coefficient of fineness for use with Tables <i>.733 (estimated)</i>					Particulars of Classification <i>1 (with fullboard) (corrected)</i>

Depth for Freeboard (D). Moulded depth ... <i>39.42</i> Stringer plate ... <i>.06</i> Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <i>39.48</i>	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(39.48 - 30.05) \times 3 = +28.29$ 9.43 (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ If restricted by superstructures	Round of Beam correction. Moulded Breadth (B) <i>60'</i> Standard Round of Beam = $\frac{B \times 12}{50} = 14.40$ Ship's Round of Beam = <i>14.50</i> Difference <i>.10</i> Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.10}{4} \times .9247 = -.02$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed ...	<i>33.96</i>	<i>33.96</i>	<i>7.0560</i>	<i>× 6/7.5</i>	<i>27.17</i>
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	<i>33.96</i>	<i>33.96</i>			<i>27.17</i>

Standard Height of Superstructure *7.5'*
 „ „ R.Q.D. *—*
 Deduction for complete superstructure *42'*
 Percentage covered $\frac{S}{L} = 7.53$
 „ „ $\frac{S_1}{L} = 7.53$
 „ „ $\frac{E}{L} = 6.03$
 Percentage from Table, Line A. *3.01*
 (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 × .0301 = -1.26*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>55.08</i>	<i>1</i>	<i>55.08</i>	<i>60.00</i>	<i>60.00</i>	<i>1</i>	<i>60.0</i>		
$\frac{1}{4}L$ from A.P. ...	<i>24.51</i>	<i>4</i>	<i>98.04</i>	<i>26.70</i>	<i>26.70</i>	<i>4</i>	<i>106.8</i>		
$\frac{2}{8}L$ „ ...	<i>6.06</i>	<i>2</i>	<i>12.12</i>	<i>6.60</i>	<i>6.60</i>	<i>2</i>	<i>13.2</i>		
Amidships ...	<i>—</i>	<i>4</i>	<i>—</i>	<i>—</i>	<i>—</i>	<i>4</i>	<i>—</i>		
$\frac{3}{8}L$ from F.P. ...	<i>12.12</i>	<i>2</i>	<i>24.24</i>	<i>13.20</i>	<i>13.20</i>	<i>2</i>	<i>26.4</i>		
$\frac{1}{2}L$ „ ...	<i>49.02</i>	<i>4</i>	<i>196.08</i>	<i>53.40</i>	<i>53.40</i>	<i>4</i>	<i>213.6</i>		
F.P. ...	<i>110.15</i>	<i>1</i>	<i>110.15</i>	<i>117.00</i>	<i>117.00</i>	<i>1</i>	<i>117.0</i>		
Total ...			<i>495.71</i>				<i>537.0</i>		

Mean actual sheer aft =
 Mean standard sheer aft = } *Same*
 Mean actual sheer forward =
 Mean standard sheer forward =
 Length of enclosed superstructure forward of amidships =
 „ „ aft of „ = } *Nil.*

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{41.29}{18} \left(.75 - \frac{.0376}{.7124} \right) = -1.63$
 If limited on account of midship superstructure. *Yes Nil.* 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. Depth to Freeboard Deck = <i>39.48</i> Summer freeboard = <i>12.23</i> Moulded draught (d) = <i>27.25</i> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>6.81 = 6\frac{3}{4}</i> 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 = $\frac{\Delta}{40T}$ inches $\frac{d}{4} = 6\frac{3}{4}$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.733 + .68}{1.36} = \frac{1.413}{1.36}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>+</td><td>-</td></tr> <tr><td>Depth Correction ...</td><td><i>28.29</i></td></tr> <tr><td>Deduction for superstructures ...</td><td><i>-1.26</i></td></tr> <tr><td>Sheer correction ...</td><td><i>-</i></td></tr> <tr><td>Round of Beam correction ...</td><td><i>.02</i></td></tr> <tr><td>Correction for Thickness of Deck amidships ...</td><td><i>-</i></td></tr> <tr><td>Other corrections, scantlings, etc. <i>to summer water draught</i></td><td><i>26.22</i></td></tr> <tr><td><i>27.3</i></td><td><i>54.51</i></td></tr> <tr><td>Summer Freeboard =</td><td><i>146.75</i></td></tr> </table>	+	-	Depth Correction ...	<i>28.29</i>	Deduction for superstructures ...	<i>-1.26</i>	Sheer correction ...	<i>-</i>	Round of Beam correction ...	<i>.02</i>	Correction for Thickness of Deck amidships ...	<i>-</i>	Other corrections, scantlings, etc. <i>to summer water draught</i>	<i>26.22</i>	<i>27.3</i>	<i>54.51</i>	Summer Freeboard =	<i>146.75</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 ...	<i>13\frac{1}{2}</i>	Tropical Fresh Water Freeboard ...	<i>12'-2\frac{3}{4}"</i>
Fresh Water Line „ „ ...	<i>6\frac{3}{4}</i>	Fresh Water „ „ ...	<i>11'-1\frac{1}{4}"</i>
Tropical Line „ „ ...	<i>6\frac{3}{4}</i>	Tropical „ „ ...	<i>11'-8"</i>
Winter Line below „ „ ...	<i>6\frac{3}{4}</i>	Winter „ „ ...	<i>11'-8"</i>
Winter North Atlantic Line „ „ ...	<i>—</i>	Winter North Atlantic „ „ ...	<i>12'-9\frac{1}{2}"</i>