

Glasgow Rpt. 72829

Index No. 22942  
(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, ~~SAILING SHIP~~, TANKER.)

Ship's Name <b>"IONIA"</b>	Official Number <b>610</b>	Nationality and Port of Registry <b>GREEK PYRAEUS</b>	Gross Tonnage <b>5357.</b>	Date of Build <b>1913 4 MONTHS</b>	Port of Survey <b>GLASGOW</b>
Moulded Dimensions: Length <b>349'-5"</b> Breadth <b>49'-9"</b> Depth <b>34'-08"</b>					Date of Survey <b>MAY 1948</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature <i>Alfred T. Wood</i>
Coefficient of fineness for use with Tables <b>734 (ASSUMED)</b>					Particulars of Classification <b>+100 AL WITH FREEBOARD (CONTINGENT)</b>

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth ...	<b>34.08</b>	(a) Where D is greater than Table depth (D - Table depth) R = <b>29.25</b>		Moulded Breadth (B)	<b>49.75</b>
Stringer plate ...	<b>04</b>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <b>05</b>		Standard Round of Beam = $\frac{B \times 12}{50}$	<b>11.94</b>
Sheathing on exposed deck <b>2 1/2" WOOD</b>		If restricted by superstructures <input checked="" type="checkbox"/>		Ship's Round of Beam	<b>12.50</b>
$T \left( \frac{L-S}{L} \right) = \frac{85.68}{349.42} \times 21$	<b>05</b>			Difference	<b>.56</b>
Depth for Freeboard (D) =	<b>34.17</b>			Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	<b>.04</b>

DEDUCTION FOR SUPERSTRUCTURES.					
	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed <i>equiv</i> ...	<b>70.66</b>	<b>70.66</b>	<b>7'-6"</b>	<input checked="" type="checkbox"/>	<b>70.66</b>
" overhang ...	<b>17.10</b>	<b>3.08</b>			<b>3.08</b>
R.Q.D. enclosed ...	<b>6.17</b>				
" overhang ...					
Bridge enclosed ...	<b>127.08</b>	<b>127.08</b>	<b>8'-0"</b>	<input checked="" type="checkbox"/>	<b>127.08</b>
" overhang aft ...					
" overhang forward ...	<b>4.50</b>				
F'cle enclosed <i>equiv</i> ...	<b>37.6</b>	<b>38.94</b>	<b>7'-9"</b>	<input checked="" type="checkbox"/>	<b>38.94</b>
" overhang ...	<b>33.2</b>	<b>10.44</b>			<b>10.44</b>
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	<b>263.74</b>	<b>260.20</b>			<b>250.20</b>

Standard Height of Superstructure **6.99**

" " R.Q.D. ☒

Deduction for complete superstructure **38.63**

Percentage covered  $\frac{S}{L} = \frac{75.49}{100}$

" "  $\frac{S_1}{L} = \frac{71.60}{100}$

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

Percentage from Table, Line B. (corrected for absence of forecastle (if required)) **64.97**

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

Deduction = **38.63 × 64.97 = 25.10**

SHEER CORRECTION.							
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S
A.P. ...	<b>44.94</b>	<b>1</b>	<b>44.94</b>	<b>45.00</b>	<b>45.00</b>	<b>1</b>	<b>45.00</b>
1/2 L from A.P. ...	<b>20.00</b>	<b>4</b>	<b>80.00</b>	<b>19.75</b>	<b>19.75</b>	<b>4</b>	<b>79.00</b>
1/2 L " ...	<b>4.94</b>	<b>2</b>	<b>9.88</b>	<b>4.94</b>	<b>4.94</b>	<b>2</b>	<b>9.88</b>
Amidships ...		<b>4</b>				<b>4</b>	
1/2 L from F.P. ...	<b>9.89</b>	<b>2</b>	<b>19.78</b>	<b>9.97</b>	<b>9.97</b>	<b>2</b>	<b>19.94</b>
1/2 L " ...	<b>39.99</b>	<b>4</b>	<b>159.96</b>	<b>39.90</b>	<b>39.90</b>	<b>4</b>	<b>159.60</b>
F.P. ...	<b>89.88</b>	<b>1</b>	<b>89.88</b>	<b>90.00</b>	<b>90.00</b>	<b>1</b>	<b>90.00</b>
Total ...			<b>404.44</b>				<b>403.42</b>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{1.02}{18} \left( \frac{.75 - .3774}{.75} \right) = +.02$

If limited on account of midship superstructure. ☒

Mean actual sheer aft = **> .75**

Mean standard sheer aft = **> .75**

Mean actual sheer forward = **> .71**

Mean standard sheer forward = **> .71**

Length of enclosed superstructure forward of amidships = **7.11**

" " aft of " = **7.11**

Deduction for Tropical Freeboard.		Deduction for Fresh Water.		TABULAR FREEBOARD corrected for Fresh Deck (if required)	
Addition for Winter and Winter North Atlantic Freeboard.		Displacement in salt water at summer load water line <b>(23'-0")</b>		Correction for coefficient	<b>56.33</b>
Depth to Freeboard Deck = <b>34.33</b>		$\Delta = \frac{7942}{2000} \text{ TONS}$			<b>58.57</b>
Summer freeboard = <b>11.08</b>		Tons per inch immersion at summer load water line <b>(23'-0")</b>		Depth Correction	<b>29.25</b>
Moulded draught (d) = <b>23.25</b>		$T = \frac{32.83}{2000} \text{ TONS}$		Deduction for superstructures	<b>25.10</b>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4} \text{ inches} = 5.81$		Deduction = $\frac{\Delta}{40 T} \text{ inches} = 6.22$		Sheer correction	<b>.02</b>
Addition for Winter North Atlantic Freeboard (if required) =		$= 15.8 \text{ m/m}$		Round of Beam correction	<b>.04</b>
				Correction for Thickness of Deck amidships	<b>1.92</b>
				Other corrections, scantlings, etc. to summer moulded draught of <b>23'-3"</b>	<b>68.38</b>
				Summer Freeboard = <b>133.00</b>	

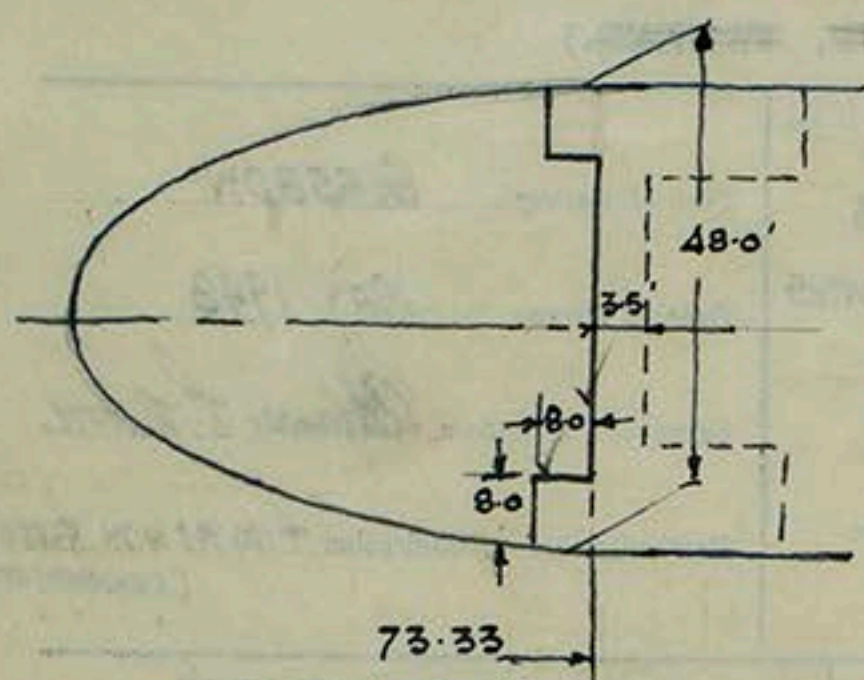
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	<b>306</b>	Tropical Fresh Water Freeboard	<b>307.2</b>
Fresh Water Line	<b>158</b>	Fresh Water	<b>322.0</b>
Tropical Line	<b>148</b>	Tropical	<b>323.0</b>
Winter Line below	<b>148</b>	Winter	<b>352.6</b>
Winter North Atlantic Line		Winter North Atlantic	



*Jonas*

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.



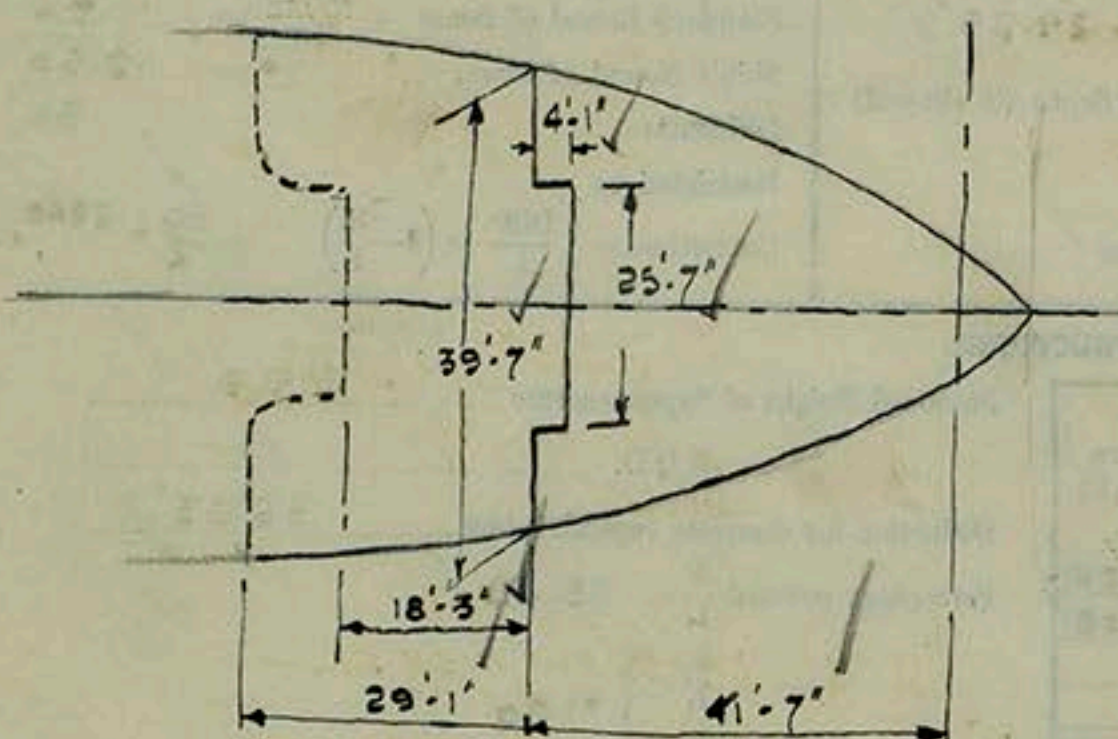
ENCLOSED LENGTH = 73.33

DEDUCT  $80 \times 8.0 \div 2 \div 48.0 = 2.67$

$70.66 = \text{EQUIV. ENCLOSED.}$

$\frac{2.67}{3.50}$

$0.17 = \text{TOTAL O/H.}$



ENCLOSED LENGTH = 41.58

DEDUCT  $23.58 \times 4.08 \div 25.7 = 2.64$

$38.94 = \text{EQUIV. ENCLOSED.}$

$\frac{2.64}{18.25}$

$20.89 = \text{O/H.}$

GENERAL ARRANGEMENT (PRELIMINARY) PLANS (4 SHEETS) FORWARDED HERewith.

Trade of ship INTERNATIONAL

Names of sister ships —

Builder's name and yard number IRVINE'S S.B. & D.D. Co. Ltd.

Owners HELLENIC MEDITERRANEAN LINES Co. Ltd.

Fee £ 28 : 0 : 0



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