

OPEN SHELTER DECK.  
**LLOYD'S REGISTER OF SHIPPING**  
UNITED WITH THE BRITISH CORPORATION REGISTER  
**SURVEYS FOR FREEBOARD**  
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

Received .....  
Index No. 43248  
Gort. 7 MAY 1955  
Owners CII .....

Ship's Name <b>"AYIA MARKELLA"</b>	Official Number	Nationality and Port of Registry <b>Greek. Chios.</b>	Gross Tonnage	Date of Build	Port of Survey <b>Sunderland.</b>
Moulded Dimensions: Length <u>445.54 BP</u> Breadth <u>61.19</u> Depth <u>CSD 40.16</u> OSD <u>30.66</u>					Date of Survey <u>Whilst building.</u>
Freeboard Length <u>CSD 446.42</u> OSD <u>445.43</u>					Surveyor's Signature <u>Jas. F. Rennie</u>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>CSD 19644</u> tons					Particulars of Classification <u>+ 100 A1</u>
Coefficient of fineness for use with Tables <u>CSD .73</u> OSD <u>.701</u> OSD <u>14386</u>					<u>(Contemplated)</u>

**DEPTH FOR FREEBOARD (D).**  
Moulded depth ... 30.66  
Stringer plate CSD .41 OSD .40 .03  
Wood Sheathing on exposed deck  
 $T \left( \frac{L-S}{L} \right) =$   
Depth for Freeboard (D) = 30.69

**DEPTH CORRECTION.**  
(a) Where D is greater than Table depth  
(D-Table depth) R = (30.69-29.73)/3 = + 2.91  
(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) 61.19  
Standard Round of Beam =  $\frac{B \times 12}{50} = \underline{14.83}$   
Ship's Round of Beam = 15  
Difference = .17  
Restricted to  
Correction =  $\frac{\text{Diff}^c}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.17}{4} \times .005 = \underline{\text{NIL}}$

**DEDUCTION FOR SUPERSTRUCTURES.**

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>35.83</u>	<u>35.83</u>	-	-	<u>35.83</u>
" overhang ...	<u>.46</u>	<u>.23</u>	-	-	<u>.23</u>
R.Q.D. enclosed ...	<u>✓</u>				
" overhang ...	<u>✓</u>				
Bridge enclosed ...	<u>405.00</u>	<u>405.00</u>	<u>9.50</u>	-	<u>405.00</u>
" overhang aft ...	<u>.46</u>	<u>.35</u>	-	-	<u>.35</u>
" overhang forward ...	<u>✓</u>				
F'cle enclosed ...	<u>✓</u>				
" overhang ...	<u>✓</u>				
Trunk aft ...	<u>✓</u>				
" forward ...	<u>✓</u>	<u>1/2 DIF</u>			
Tonnage opening aft ...	<u>4.04</u>	<u>2.21</u>	-	-	<u>2.21</u>
" " forward ...	<u>✓</u>				
Total ...	<u>445.43</u>	<u>443.62</u>			<u>443.62</u>

Standard Height of Superstructure 7.5  
" " R.Q.D. -  
Deduction for complete superstructure 42.00  
Percentage covered  $\frac{S}{L} = 100$   
" "  $\frac{S_1}{L} =$   
" "  $\frac{E}{L} =$   
Percentage from Table, Line A. & B 99.38  
(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 .9938 = 41.74

**SHEER CORRECTION.**

Station	Standard Ordinate	S M	Product	Actual Ordinate +24	Effective Ordinate	S M	Product
A.P. ...	<u>54.58</u>	1	<u>54.58</u>	<u>51.62</u>	<u>81.62</u>	1	<u>81.62</u>
1/2 L from A.P. ...	<u>24.29</u>	4	<u>97.16</u>	<u>13.12</u>	<u>36.32</u>	4	<u>145.28</u>
1/4 L " ...	<u>6.00</u>	2	<u>12.00</u>	<u>✓</u>	<u>8.48</u>	2	<u>17.96</u>
Amidships ...	<u>0</u>	4	<u>0</u>	<u>0</u>	<u>0</u>	4	<u>0</u>
3/4 L from F.P. ...	<u>12.01</u>	2	<u>24.02</u>	<u>2.15</u>	<u>15.18</u>	2	<u>30.36</u>
1/2 L " ...	<u>48.58</u>	4	<u>194.32</u>	<u>36.25</u>	<u>61.41</u>	4	<u>245.64</u>
F.P. ...	<u>109.17</u>	1	<u>109.17</u>	<u>114.00</u>	<u>138.00</u>	1	<u>138.00</u>
Total ...			<u>491.25</u>	<u>+ 24</u>			<u>658.86</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{167.61}{18} \times .25 = \underline{-2.33}$   
If limited on account of midship superstructure.

Mean actual sheer aft = Excess  
Mean standard sheer aft =  
Mean actual sheer forward = Excess  
Mean standard sheer forward =  
Length of enclosed superstructure forward of amidships =  
" " aft of " =

**Deduction for Tropical Freeboard.****Addition for Winter and Winter North Atlantic Freeboard.**

Depth to Freeboard Deck = 30.69 Ft.  
Summer freeboard = 3.83  
Moulded draught (d) = 26.86  
Keel allowance =  
Extreme draught =  
Deduction for Tropical freeboard and addition for =

Winter freeboard =  $\frac{d}{4}$  inches = 6.72 = 171mm

Addition for Winter North Atlantic Freeboard (if required) =

**Deduction for Fresh Water.**

Displacement in salt water at summer load water line  
 $\Delta = 14959$   
Tons per inch immersion at summer load water line  
T = 52.96  
Deduction =  $\frac{\Delta}{40 T}$  inches  
= 7.06  
= 179mm

**TABULAR FREEBOARD** corrected for Flush Deck (if required)

Correction for coefficient 701+68 = 1.381  
1.36 = 1.36

	+	-
Depth Correction ...	<u>2.91</u>	-
Deduction for superstructures ...	-	<u>41.74</u>
Sheer correction ...	-	<u>2.33</u>
Round of Beam correction ...	-	-
Correction for Thickness of Deck amidships ...	-	-
Other corrections, scantlings, etc. ...	-	-
	<u>2.91</u>	<u>44.07</u>

Summer Freeboard = 45.97

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

Tropical Fresh Water Line above Centre of Disc	<u>350mm</u>	Tropical Fresh Water Freeboard	<u>817mm</u>
Fresh Water Line " "	<u>179mm</u>	Fresh Water " "	<u>988mm</u>
Tropical Line " "	<u>171mm</u>	Tropical " "	<u>996mm</u>
Winter Line below " "	<u>171mm</u>	Winter " "	<u>1338mm</u>
Winter North Atlantic Line " "	<u>...</u>	Winter North Atlantic " "	<u>...</u>



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.

Displacement in salt water at summer load water line.

CSD. 15918 tons at extreme draft of 28'-5 1/4". Tons per inch = 53.60

OSD. 14959 tons at " " " 26'-11 1/4". " " " = 52.96.

Trade of ship

✓

Names of sister ships

✓

Builder's name and yard number

Bartram & Sons Ltd. Yard No 348.

Owners

(CML) Maritime Co. Ltd.

Fee £

will be charged on completion.

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)

Midships Section. Profile & Decks.



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