

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index. No. \_\_\_\_\_  
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having \_\_\_\_\_

(Type of Superstructures.) \_\_\_\_\_

Port of Survey \_\_\_\_\_

Date of Survey 23 / 1 / 34

Name of Surveyor \_\_\_\_\_

Particulars of Classification \_\_\_\_\_

Ship's Name <u>M.V. Alcantara</u>	Nationality and Port of Registry _____	Official Number _____	Gross Tonnage <u>42</u>	Date of Build _____
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Moulded Dimensions: Length 640 Breadth 78 Depth 38.57 (equal)

Moulded displacement at moulded draught = 85 per cent. of moulded depth 34080 tons

Coefficient of fineness for use with Tables 763.749

<p><b>Depth for Freeboard (D)</b></p> <p>Moulded depth ... .. <u>38.57</u></p> <p>Ring plate ... .. <u>0.4</u></p> <p>Leathing on exposed deck</p> <p><math>T \left( \frac{L-S}{L} \right) =</math> <u>46</u></p> <p>Depth for Freeboard (D) = <u>38.67</u></p>	<p><b>Depth correction</b></p> <p>(a) Where D is greater than Table depth (D-Table depth) R = _____</p> <p>(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>38.46</u> <u>4.74</u> = <u>12.18</u> <u>12.63</u></p> <p>If restricted by superstructures _____</p>	<p><b>Round of Beam correction</b></p> <p>Moulded Breadth (B) _____</p> <p>Standard Round of Beam = <math>\frac{B \times 12}{50} =</math> _____</p> <p>Ship's Round of Beam = <u>Standard</u></p> <p>Difference _____</p> <p>Restricted to _____</p> <p>Correction = <math>\frac{\text{Diff}^\circ}{4} \times \left( 1 - \frac{S_1}{L} \right) =</math> <u>Nil.</u></p>
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### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..					
„ overhang ... ..					
R.Q.D. enclosed ... ..					
„ overhang ... ..					
Bridge enclosed ... ..					
„ overhang aft ... ..					
„ overhang forward ... ..					
Fore enclosed ... ..					
„ overhang ... ..					
Trunk aft ... ..					
„ forward ... ..					
Tonnage opening aft ... ..					
„ „ forward ... ..					
Total ... ..					

Standard Height of Superstructure 7'-6" ✓

„ „ R.Q.D. ✓

Deduction for complete superstructure 42.00

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

„ „  $\frac{S_1}{L} =$  100%

„ „  $\frac{E}{L} =$  \_\_\_\_\_

Percentage from Table, Line A. \_\_\_\_\_

(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 = 42.00 ✓

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
... ..		1			<u>+6"</u>		1		
From A.P. ... ..		4					4		
„ ... ..		2					2		
amidships ... ..		4					4		
From F.P. ... ..		2					2		
„ ... ..		4					4		
... ..		1					1		
Total ... ..					<u>+6"</u>				

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) =$  - .50" ✓

If limited on account of midship superstructure. \_\_\_\_\_

If limited to maximum allowance of 1½ ins. per 100 ft. \_\_\_\_\_

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 „ = Less

<p><b>Correction for Tropical Freeboard.</b></p> <p><b>Correction for Winter and Winter North Atlantic Freeboard.</b></p> <p>Depth to Freeboard Deck = <u>38.67</u></p> <p>Summer freeboard = <u>7.59</u></p> <p>Moulded draught (d) = <u>30.87</u></p> <p>Correction for Tropical freeboard and addition for winter freeboard = <math>\frac{d}{4}</math> inches = _____</p> <p>Correction for Winter North Atlantic Freeboard (if required) = _____</p>	<p><b>Deduction for Fresh Water.</b></p> <p>Displacement in salt water at summer load water line</p> <p><math>\Delta =</math> _____</p> <p>Tons per inch immersion at summer load water line</p> <p><math>T =</math> _____</p> <p>Deduction = <math>\frac{\Delta}{40T}</math> inches = _____</p>	<p><b>TABULAR FREEBOARD corrected for Flush Deck (if required)</b></p> <p>Correction for coefficient <u>1429</u></p> <table border="1"> <tr><td>Depth Correction ... ..</td><td><u>12.63</u></td></tr> <tr><td>Deduction for superstructures ... ..</td><td><u>42.00 ✓</u></td></tr> <tr><td>Sheer correction ... ..</td><td><u>1.50 ✓</u></td></tr> <tr><td>Round of Beam correction ... ..</td><td><u>-</u></td></tr> <tr><td>Correction for Thickness of Deck amidships ... ..</td><td><u>-</u></td></tr> <tr><td>Other corrections, scantlings, etc. ... ..</td><td><u>-</u></td></tr> <tr><td>Summer Freeboard =</td><td><u>92.90</u></td></tr> </table>	Depth Correction ... ..	<u>12.63</u>	Deduction for superstructures ... ..	<u>42.00 ✓</u>	Sheer correction ... ..	<u>1.50 ✓</u>	Round of Beam correction ... ..	<u>-</u>	Correction for Thickness of Deck amidships ... ..	<u>-</u>	Other corrections, scantlings, etc. ... ..	<u>-</u>	Summer Freeboard =	<u>92.90</u>
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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 „ „ ... ..

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Summer Mld Draught desired = 30'-10½ Equivalent Mld Depth = 38.67

002215-002221-0125



Mid. Sec. Coeff

$$(39 \times 30.875) - (39 \times 1.5 + 275 \times 5.875)$$

$$1204 - 74.65 = 1129.35$$

$$\text{Coeff} = \frac{1129.35}{1204} = .938$$

$$\text{Additional Tonnage for 10 ft} = \frac{1129.35 \times 10}{35} = 323 \text{ tons}$$

$$\begin{array}{r} \Delta @ 30' - 10\frac{1}{2}' = 31800 @ L = 630 \\ + 10' \quad \quad \quad 323 \\ \hline 32123 @ 640 \end{array}$$

$$\Delta \text{ Coeff} = \frac{32123 \times 35}{630 \times 78 \times 30.875} = .741$$



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