

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

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

Ship's Name <b>"BOSTONIAN"</b> EX <b>"ANTEO"</b>	Official Number ✓	Nationality and Port of Registry PANAMA. PANAMA.	Gross Tonnage 6772	Date of Build 1934 11	Port of Survey <b>MOBILE, ALA.</b> Date of Survey <b>20th Oct. 1942</b> Surveyor's Signature <b>J.S. Z. Gold.</b> Particulars of Classification <b>100 A.1.</b> <b>Carrying Petroleum in bulk</b>
Moulded Dimensions: Length <b>418.9</b> Breadth <b>16.46</b> Depth <b>33.3</b> <b>33.35</b>					
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					
Coefficient of fineness for use with Tables <b>0.768 extended.</b>					
Depth for Freeboard (D). <b>33.35</b> Moulded depth ... <b>33.06</b> Stringer plate ... <b>10.06</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ <b>33.41</b> Depth for Freeboard (D) = <b>33.06</b>		Depth correction. (a) Where D is greater than Table depth (D - Table depth) R = <b>(33.06 - 28.59) 3 = +13.41"</b> (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) _____ Standard Round of Beam = $\frac{B \times 12}{50} =$ <b>13.55"</b> Ship's Round of Beam = _____ = <b>15.88</b> Difference <b>2.33</b> Restricted to _____ Correction = $\text{Diff} \times \left( \frac{1-S}{L} \right) = \frac{2.33}{4} \times 689 = -37" $	

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	107.00	107.00	7.37	$\times 2.37/7.37$	105.15	Standard Height of Superstructure <b>7.60</b>
.. overhang ...						.. R.Q.D. <b>✓</b>
R.Q.D. enclosed ...						Deduction for complete superstructure <b>42.00</b>
.. overhang ...						Percentage covered $\frac{S}{L} =$ <b>38.69</b>
Bridge enclosed ...	25.00	18.75	7.37	$\times 7.17/7.37$	18.42	.. $\frac{S}{L} =$ <b>36.61</b>
.. overhang aft ...						.. $\frac{E}{L} =$ <b>35.97</b>
.. overhang forward						Percentage from Table, line <b>Tanker</b> <b>26.97</b>
Fore enclosed ...	29.00	29.00	7.37	$\times 7.17/7.37$	28.50	(corrected for absence of forecastle (if required))
.. overhang ...	4.50	3.25	7.37	$\times 2.37/7.37$	2.21	Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required))
.. forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...						Deduction = <b>42 x 26.97 = - 11.33"</b>
.. forward						
Total ...	165.60	157.00			154.28	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	52.89	1	62.89	59.12	59.12	1	59.12			Mean actual sheer aft = <b>&gt; 1.00</b>
1/2 L from A.P. ...	23.53	4	94.12	29.00	29.00	4	116.00			Mean standard sheer aft = _____
1/2 L ..	5.82	2	11.64	7.50	7.50	2	15.00			Mean actual sheer forward = <b>&gt; 1.00</b>
Amidships ...		4		0		4				Mean standard sheer forward = _____
1/2 L from F.P. ...	11.64	2	23.28	12.25	12.25	2	24.50			Length of enclosed superstructure forward of amidships = <b>Tanker</b>
1/2 L ..	47.07	4	188.28	52.89	52.89	4	211.52			.. aft of .. = <b>does not apply.</b>
F.P. ...	105.78	1	105.78	118.25	118.25	1	118.25			
Total ...			475.99				594.39			

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{6840}{18} \times \frac{667}{15} = -2.12$   
 If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft.

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>33.41</b> Summer freeboard = <b>6.16</b> Moulded draught (d) = <b>26.97</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>6 3/4"</b> Addition for Winter North Atlantic Freeboard (if required) = <b>11"</b>	<b>Deduction for Fresh Water.</b> 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 = <b>7 1/4"</b>	<b>TABULAR FREEBOARD corrected for Fresh Deck (if required)</b> Correction for coefficient $\frac{68 + 768}{1.36} = \frac{1.008}{1.36}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td>13.41</td> <td></td> </tr> <tr> <td>Deduction for superstructures ...</td> <td></td> <td>11.33</td> </tr> <tr> <td>Sheer correction ...</td> <td></td> <td>2.12</td> </tr> <tr> <td>Round of Beam correction ...</td> <td></td> <td>37</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> </table> Summer Freeboard = <b>73.76</b>		+	-	Depth Correction ...	13.41		Deduction for superstructures ...		11.33	Sheer correction ...		2.12	Round of Beam correction ...		37	Correction for Thickness of Deck amidships			Other corrections, scantlings, etc. ...		
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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 ... <b>14.35</b> Fresh Water Line ... <b>7 3/4"</b> Tropical Line ... <b>6 3/4"</b> Winter Line below ... <b>6 3/4"</b> Winter North Atlantic Line ... <b>11"</b>	Tropical Fresh Water Freeboard ... <b>4.11 1/2" = 15.18</b> Fresh Water ... <b>5.62 = 16.89</b> Tropical ... <b>5.7 = 17.02</b> Winter ... <b>6.8 1/2 = 20.44</b> Winter North Atlantic ... <b>7.0 1/4 = 21.52</b>
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