

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, ~~SAILING SHIP, TANKER.~~)

Ship's Name <i>Amari</i>	Official Number	Nationality and Port of Registry <i>Swedish Stockholm</i>	Gross Tonnage 2831	Date of Build 1912-10	Port of Survey <i>Gothenburg</i>
Dimensions: Length <i>314</i> ✓ Breadth <i>46.33</i> ✓ Depth <i>23.46</i> ✓					Date of Survey <i>8.10.42</i>
displacement at moulded draught = 85 per cent. of moulded depth <i>6615</i> ✓ tons					Surveyor's Signature <i>J. Horseland</i>
Coefficient of fineness for use with Tables <i>.798</i> ✓					Particulars of Classification <i>+100 A1.</i>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... <i>23.46</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(23.5-20.93) 2.415 = +6.21" ✓</i>	Moulded Breadth (B) <i>46.33</i> ✓
Freeboard ... <i>10.4</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <i>2.57</i>	Standard Round of Beam = $\frac{B \times 12}{50} = 11.12$ ✓
Freeboard on exposed deck (-S) =	If restricted by superstructures	Ship's Round of Beam = <i>11.5</i> ✓
Depth for Freeboard (D) = <i>23.50</i> ✓		Difference <i>Excess .38</i> ✓
		Restricted to
		Correction = $\frac{\text{Diff.}}{4} \times (1 - \frac{S_1}{L}) = \frac{.38}{4} \times (1 - .5016) = -.05$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
<i>24.5</i> ✓	<i>24.5</i>	<i>7.5</i> °		<i>24.5</i>
<i>97.92</i> ✓	<i>97.92</i>	<i>7.5</i>		<i>97.92</i>
<i>35.08</i> ✓	<i>35.08</i>	<i>7.5</i> °		<i>35.08</i>
<i>157.5</i> ✓	<i>157.5</i> ✓			<i>157.5</i> ✓

Standard Height of Superstructure *6.64* ✓
" " R.Q.D.
Deduction for complete superstructure *36.27* ✓
Percentage covered $\frac{S}{L} = 50.16$ ✓
" " $\frac{S_1}{L} = 50.16$ ✓
" " $\frac{E}{L} = 50.16$ ✓
Percentage from Table, Line A. -
(corrected for absence of forecastle (if required)) -
Percentage from Table, Line B. *36.16* ✓
(corrected for absence of forecastle (if required)) -
Interpolation for bridge less than 2L (if required) -
Deduction = *36.27 * 36.16 = -13.12* ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
<i>41.40</i>	<i>1</i>	<i>41.40</i>	<i>42.00</i>	<i>42.00</i>	<i>1</i>	<i>42.00</i>			
<i>18.43</i>	<i>4</i>	<i>73.72</i>	<i>18.37</i>	<i>18.37</i>	<i>4</i>	<i>73.48</i>			
<i>4.55</i>	<i>2</i>	<i>9.10</i>	<i>4.59</i>	<i>4.59</i>	<i>2</i>	<i>9.18</i>			
<i>9.11</i>	<i>2</i>	<i>18.22</i>	<i>10.12</i>	<i>10.12</i>	<i>2</i>	<i>20.24</i>			
<i>36.84</i>	<i>4</i>	<i>147.36</i>	<i>40.42</i>	<i>40.42</i>	<i>4</i>	<i>161.96</i>			
<i>82.80</i>	<i>1</i>	<i>82.80</i>	<i>93.00</i>	<i>93.00</i>	<i>1</i>	<i>93.00</i>			
<i>372.60</i> ✓						<i>399.86</i> ✓			

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 = *.157* ✓
" " aft of " = *.154* ✓
Difference between sums of products $\frac{27.26}{18} \times (.75 - \frac{S}{2L}) = \frac{27.26}{18} \times (.75 - .2508) = -.76$ ✓
on account of midship superstructure. If limited to maximum allowance of 1½ ins. per 100 ft.

Immersion for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard.	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 6631$ Tons per inch immersion at summer load water line $T = 30.47$ Deduction = $\frac{\Delta}{40T}$ inches $= 5.45$ $= 138\%$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.798 + .68}{1.36} = \frac{1.478}{1.36}$ Depth Correction ... <i>6.21</i> ✓ Deduction for superstructures ... <i>13.18</i> ✓ Sheer correction ... <i>.76</i> ✓ Round of Beam correction ... <i>.05</i> ✓ Correction for Thickness of Deck amidships ... Other corrections, scantlings, etc. ... Summer Freeboard = <i>43.25</i> ✓
Depth to Freeboard Deck = <i>23.50</i> ✓ Summer freeboard = <i>3.60</i> ✓ Moulded draught (d) = <i>19.90</i> ✓ Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>4.98</i> = <i>126%</i> ✓ Addition for Winter North Atlantic Freeboard (if required) = <i>51%</i> ✓		

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

Tropical Fresh Water Line above Centre of Disc ...	<i>264%</i>	Tropical Fresh Water Freeboard ...	<i>8.55</i>
Fresh Water Line " " ...	<i>138</i>	Fresh Water " " ...	<i>9.61</i>
Tropical Line " " ...	<i>126</i>	Tropical " " ...	<i>9.73</i>
Winter Line below " " ...	<i>126</i>	Winter " " ...	<i>12.25</i>
Winter North Atlantic Line " " ...	<i>177</i>	Winter North Atlantic " " ...	<i>12.76</i>