

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker				
Drawing <i>R.Q.D. - BRIDGE - FORECASTLE.</i>			Port of Survey	
(Type of Superstructures.) <i>Boffin 4.2.28</i>				
Ship's Name <i>AKENSIDE</i>	Nationality and Port of Registry <i>BRITISH NEWCASTLE</i>	Official Number <i>140680</i>	Gross Tonnage <i>2694</i>	Date of Build <i>1914</i>
Moulded Dimensions: Length <i>321</i> Breadth <i>43.00</i> Depth <i>21.75</i>				Date of Survey <i>9-5-32</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth				Name of Surveyor
Coefficient of fineness for use with Tables <i>.465</i>				Particulars of Classification

Depth for Freeboard (D) Moulded depth ... Stringer plate ... Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <i>21.80</i>	Depth correction (a) Where D is greater than Table depth (D - Table depth) R = <i>(+) .99</i> (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 = $\frac{B \times 12}{50} =$ Ship's Round of Beam = Difference Restricted to Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <i>(-) .03</i>
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...						Standard Height of Superstructure <i>6.71</i>
„ overhang ...						„ „ R.Q.D. <i>4.95</i>
R.Q.D. enclosed ...						Deduction for complete superstructure <i>36.73</i>
„ overhang ...						Percentage covered $\frac{S}{L} =$
Bridge enclosed ...						„ „ $\frac{S_1}{L} =$
„ overhang aft ...						„ „ $\frac{E}{L} =$ <i>62.44</i> ✓
„ overhang forward						Percentage from Table, Line A. <i>TIMBER</i>
F'cle enclosed ...						(corrected for absence of forecastle (if required))
„ overhang ...						Percentage from Table, Line B. <i>46.96</i> ✓
Trunk aft ...						(corrected for absence of forecastle (if required))
„ forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...						Deduction = <i>.4696 \times 36.73 = 28.24</i> ✓
„ „ forward						
Total ...					<i>346.28</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...		1					1		
$\frac{1}{6}$ L from A.P. ...		4					4		
$\frac{2}{6}$ L „ ...		2					2		
Amidships ...		4					4		
$\frac{2}{6}$ L from F.P. ...		2					2		
$\frac{1}{6}$ L „ ...		4					4		
F.P. ...		1					1		
Total ...									

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ *(+) .45*

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

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

Depth to Freeboard Deck = *26.05* Ft.
Summer freeboard = *6.35*
Moulded draught (d) = *19.70*

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = *4.93* 5"
Addition for Winter North Atlantic Freeboard (if required) = $\frac{19.70}{3} = 6.57$ 6 $\frac{1}{2}$ "

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta =$ *6030*
Tons per inch immersion at summer load water line
T = *29*
Deduction = $\frac{\Delta}{40T}$ inches = *5.20*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction ...	<i>.99</i> ✓	
Deduction for superstructures ...		<i>28.24</i> ✓
Sheer correction ...	<i>.45</i> ✓	
Round of Beam correction ...		<i>.03</i> ✓
Correction for Thickness of Deck amidships	<i>51.00</i>	
Other corrections, scantlings, etc. ...		
	<i>52.44</i>	<i>28.30</i>

Summer Freeboard = *46.15*

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

TIMBER Tropical Fresh Water Line above Centre of Disc	... <i>18$\frac{1}{4}$</i> ...
„ Fresh Water Line	... <i>13$\frac{3}{4}$</i> ...
„ Tropical Line	... <i>13</i> ...
„ Winter Line	below ABOVE ... <i>1$\frac{1}{2}$</i> ...
„ Winter North Atlantic Line	„ BELOW „ ... <i>8$\frac{1}{2}$</i> ...

TIMBER Tropical Fresh Water Freeboard	...
„ Fresh Water	...
„ Tropical	...
„ Winter	...
„ Winter North Atlantic	...

6'-4 $\frac{1}{4}$ "
5'-6 $\frac{1}{2}$ "
5'-11"
5'-11 $\frac{1}{4}$ "
6'-10 $\frac{3}{4}$ "
4'-8 $\frac{3}{4}$ "
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