

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

GLASGOW REPORT No. 55924

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *Raised Quarter Deck; Bridge & Fore.*Port of Survey *Glasgow*Date of Survey *3rd July 1935*Name of Surveyor *R. Dunsmuir*Particulars of Classification *100 A1*
(Contemplated)

Ship's Name *Scott & Sons. Bowling*
Yard No. *33H*

Nationality and Port of Registry
Official Number
Gross Tonnage
Date of Build

Moulded Dimensions: Length *190.0* Breadth *30.75* Depth *13.75 to upper deck.*
Moulded displacement at moulded draught = 85 per cent. of moulded depth *1386* tons
Coefficient of fineness for use with Tables *.71*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <i>13.75</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>(13.78 - 12.67) × 1.461 = +1.62</i>	Moulded Breadth (B) <i>30.75</i>
Stringer plate <i>.03</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <i>✓</i>	Standard Round of Beam = $\frac{B \times 12}{50} =$ <i>7.38</i>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <i>NONE</i>	If restricted by superstructures <i>✓</i>	Ship's Round of Beam = <i>9"</i>
Depth for Freeboard (D) = <i>13.78</i>		Difference <i>1.62</i>
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times (1 - \frac{S_1}{L}) =$ <i>$\frac{1.62}{4} \times .2076 = -.08$</i>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Deck enclosed					
" overhang					
R.Q.D. enclosed	<i>106.33</i>	<i>106.33</i>	<i>4.0</i>	<i>✓</i>	<i>106.33</i>
" overhang					
Bridge enclosed	<i>12.84</i>	<i>12.84</i>	<i>7.0</i>	<i>✓</i>	<i>12.84</i>
" overhang aft					
" overhang forward					
F'cle enclosed <i>Equival</i>	<i>29.23</i>	<i>29.23</i>	<i>4.0</i>	<i>✓</i>	<i>29.23</i>
" overhang	<i>4.34</i>	<i>2.17</i>			<i>2.17</i>
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	<i>152.74</i>	<i>150.57</i>			<i>150.57</i>

Standard Height of Superstructure *6.0*

" " R.Q.D. *3.60*

Deduction for complete superstructure *25*

Percentage covered $\frac{S}{L} =$ *80.40*

" " $\frac{S_1}{L} =$ *79.24*

" " $\frac{E}{L} =$ *79.24*

Percentage from Table, Line A. *74.36* ✓
(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 = *25 × 74.36 = 18.59*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<i>29.00</i>	1			<i>34.80</i>	<i>38.80</i>	1		<i>38.80</i>
1/2 L from A.P.		4			<i>15.5</i>	<i>17.26</i>	4		<i>69.04</i>
L "		2			<i>4.5</i>	<i>4.27</i>	2		<i>8.54</i>
midships		4			<i>0</i>	<i>-</i>	4		<i>-</i>
from F.P.		2			<i>4.5</i>	<i>7.50</i>	2		<i>15.00</i>
L "		4			<i>31.0</i>	<i>31.00</i>	4		<i>124.00</i>
P.	<i>58.00</i>	1			<i>68.0</i>	<i>68.00</i>	1		<i>68.00</i>
Total				<i>261.00</i>					<i>323.38</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ *$\frac{62.38}{18} (.75 - .402) = -1.21$ ✓*If limited on account of midship superstructure. *✓*

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *17.78* ✓

Summer freeboard = *4.31* ✓

Moulded draught (d) = *13.47* ✓

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *3.37 = 3 3/4* ✓Addition for Winter North Atlantic Freeboard (if required) = *5 1/4*

The Approved Plans of Midship Section & Profile and Decks Forwarded for reference.

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

Tropical Fresh Water Line above Centre of Disc	<i>5"</i>
Fresh Water Line " "	<i>3 1/4"</i>
Tropical Line " "	<i>1 3/4"</i>
Winter Line below " "	<i>3 1/4"</i>
Winter North Atlantic Line " "	<i>5 1/4"</i>

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	<i>1.62</i>	<i>-</i>
Deduction for superstructures	<i>-</i>	<i>18.59</i>
Sheer correction	<i>-</i>	<i>1.21</i>
Round of Beam correction	<i>-</i>	<i>.08</i>
Correction for Thickness of Deck amidships	<i>48.00</i>	<i>-</i>
Other corrections, scantlings, etc.		

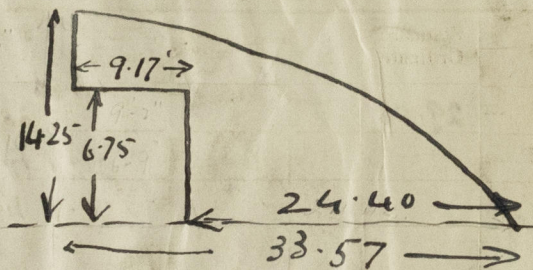
Summer Freeboard = *51.61* ✓

Tropical Fresh Water Freeboard	<i>4' - 3 1/4"</i>
Fresh Water " "	<i>3' - 10 3/4"</i>
Tropical " "	<i>4' - 0 1/2"</i>
Winter " "	<i>4' - 2" (limited)</i>
Winter North Atlantic " "	<i>4' - 7"</i>

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Forecast

$$\begin{array}{r} \text{Rear} \\ 6.75 \times 9.17 \\ \hline 14.25 \end{array} = \begin{array}{r} \text{File} \\ 33.57 \\ 4.34 \\ \hline 29.23 \text{ equiv.} \\ \text{inc.} \end{array}$$



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