

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name **SPORTS** Official Number **181754** Nationality and Port of Registry **British London** Gross Tonnage **3311.40** Date of Build **1909** Port of Survey \_\_\_\_\_

Moulded Dimensions: Length **318-8** Breadth **46** Depth **24.66** Date of Survey **24.11.12**

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

Coefficient of fineness for use with Tables **.70 assumed** Particulars of Classification **Examined for 12 months**

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... <b>24.66</b>	(a) Where D is greater than Table depth (D-Table depth) R = <b>+ 8.46</b>	Moulded Breadth (B) _____
Stringer plate ... <b>.04</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = _____	Standard Round of Beam = $\frac{B \times 12}{50}$ = _____
Sheathing on exposed deck	If restricted by superstructures _____	Ship's Round of Beam _____
$T \left( \frac{L-S}{L} \right) =$ _____		Difference _____
Depth for Freeboard (D) = <b>24.70</b>		Restricted to _____
		Correction = $\frac{\text{Diff}^\circ}{4} \times \left( 1 - \frac{S_1}{L} \right) = -0.12$

**DEDUCTION FOR SUPERSTRUCTURES.**

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<b>26.75</b>				
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	<b>94.00</b>				
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed ...	<b>34.00</b>				
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	<b>154.75</b>				

Standard Height of Superstructure **6.69**

„ „ R.Q.D. \_\_\_\_\_

Deduction for complete superstructure **36.58**

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

„ „  $\frac{S_1}{L} =$  **48.51**

„ „  $\frac{E}{L} =$  \_\_\_\_\_

Percentage from Table, Line **Timber 68.35**

(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 = **36.58 x .6835 = -25.00**

**SHEER CORRECTION.**

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...		1				1	
$\frac{1}{8}L$ from A.P. ...		4				4	
$\frac{2}{8}L$ „ ...		2				2	
Amidships ...		4				4	
$\frac{3}{8}L$ from F.P. ...		2				2	
$\frac{4}{8}L$ „ ...		4				4	
F.P. ...		1				1	
Total ...							

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = +1.41$

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.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Fresh Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient <b>1.38/1.36</b>
Depth to Freeboard Deck = <b>24.70</b>	$\Delta =$	Depth Correction ... <b>8.46</b>
Summer freeboard = <b>2.92</b>	Tons per inch immersion at summer load water line	Deduction for superstructures ... <b>25.00</b>
Moulded draught (d) = <b>21.78</b>	T =	Sheer correction ... <b>1.41</b>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>5.44 = 5.2</b>	Deduction = $\frac{\Delta}{40 T}$ inches = <b>5.14</b>	Round of Beam correction ... <b>.12</b>
Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} = 7.26 = 7.14$		Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		<b>9.87 25.12 -15.25</b>
		Summer Freeboard = <b>33.53</b>

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

Freeboard amidships	Timber	Tropical Fresh Water Line above Centre of Disc	Timber	Tropical Fresh Water Line above Centre of Disc
Fresh Water Line	„	„	„	„
Tropical Line	„	„	„	„
Winter Line	„	„	„	„
Winter North Atlantic Line	„	„	„	„
SUMMER LINE	„	„	„	„

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