

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

 Index. No. 34123  
 (For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
 having a Poop, a Trunk & a Forecastle

(Type of Superstructures.)

Ship's Name <u>Messrs. J. &amp; S. Co.</u> <u>Land No. 212</u>	Nationality and Port of Registry <u>British</u>	Official Number	Gross Tonnage	Date of Build <u>Building</u>
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Port of Survey \_\_\_\_\_

Date of Survey 18<sup>th</sup> Dec. 1931

Name of Surveyor \_\_\_\_\_

Particulars of Classification \_\_\_\_\_

Moulded Dimensions: Length 250.0 Breadth 43.0 Depth 18.0

Moulded displacement at moulded draught = 85 per cent. of moulded depth 3790 tons

Coefficient of fineness for use with Tables .806 ✓

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. <u>18.0</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(18.04 - 16.67) 1.923 + 2.63</u>	Moulded Breadth (B) <u>43.0</u>
Tringer plate ... .. <u>.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>1.37</u>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{10.32}{50}$ ✓
Heating on exposed deck $T \left( \frac{L-S}{L} \right) =$ ✓	If restricted by superstructures	Ship's Round of Beam = <u>11.00</u> ✓
Depth for Freeboard (D) = <u>18.04</u>		Difference <u>.68</u>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.68}{4} \times .284 = .05$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<u>62.0</u> ✓	<u>62.0</u> ✓	<u>7.6</u>	✓	<u>62.00</u> ✓	Standard Height of Superstructure <u>6.0</u> ✓
" overhang ...						" " R.Q.D. <u>-</u>
R.Q.D. enclosed ...						Deduction for complete superstructure <u>31.0</u> ✓
" overhang ...						Percentage covered $\frac{S}{L} = \frac{41.20}{43.0}$ ✓
Bridge enclosed ...						" " $\frac{S_1}{L} = \frac{41.62}{43.0}$ ✓
" overhang aft ...						" " $\frac{E}{L} = \frac{41.62}{43.0}$ ✓
" overhang forward						Percentage from Table, Line A. ✓
F'cle enclosed ...	<u>41.0</u> ✓	<u>41.0</u>	<u>7.6</u>	-	<u>41.0</u> ✓	(corrected for absence of forecastle (if required))
" overhang ...						Percentage from Table, Line B. <u>64.99</u> ✓
Trunk aft <u>82.21-67+43.0</u>		<u>6.02</u>	<u>7.6</u>	-	<u>6.02</u>	(corrected for absence of forecastle (if required))
" forward <u>139 x 21.67</u>		<u>40.04</u>	<u>7.6</u>	-	<u>40.04</u> ✓	Interpolation for bridge less than .2L (if required)
Tonnage opening aft <u>43</u>						Deduction = <u>31.0 x .6499 = 20.15</u> ✓
" forward						
Total ...	<u>103.0</u>	<u>179.06</u>			<u>179.06</u>	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
... ..	<u>35.0</u> ✓	1		<u>35.0</u>	<u>24.0</u>	<u>24.0</u>	1		<u>24.0</u>
from A.P. ...	<u>15.57</u>	4		<u>62.28</u>	<u>4.0</u>	<u>4.0</u>	4		<u>16.0</u>
" ...	<u>3.85</u>	2		<u>7.70</u>	<u>0</u>	<u>0</u>	2		<u>0</u>
amidships ...	<u>0</u>	4		<u>0</u>	<u>0</u>	<u>0</u>	4		<u>0</u>
from F.P. ...	<u>7.70</u>	2		<u>15.40</u>	<u>0</u>	<u>0</u>	2		<u>0</u>
" ...	<u>31.15</u>	4		<u>124.60</u>	<u>6.8</u>	<u>6.8</u>	4		<u>27.2</u>
... ..	<u>70.00</u>	1		<u>70.0</u>	<u>48.0</u>	<u>48.0</u>	1		<u>48.0</u>
Total ...				<u>314.98</u>					<u>115.2</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{199.78}{18} (.75 - .206) = 6.04$

If limited on account of midship superstructure. ✓

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

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

Depth to Freeboard Deck = 18.04  
 Summer freeboard = 1.91  
 Moulded draught (d) = 16.13

Correction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 4.03

Addition for Winter North Atlantic Freeboard (if required) = 2.50

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T =

Deduction =  $\frac{\Delta}{40 T}$  inches = 4.03

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction ... ..	<u>2.63</u> ✓	-
Deduction for superstructures ... ..	-	<u>20.15</u> ✓
Sheer correction ... ..	<u>6.04</u> ✓	-
Round of Beam correction ... ..	-	<u>.05</u> ✓
Correction for Thickness of Deck amidships ... ..	-	-
Other corrections, scantlings, etc. ... ..	-	-
	<u>8.67</u>	<u>20.20</u>
Summer Freeboard =	<u>22.89</u> ✓	

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

Tropical Fresh Water Line above Centre of Disc ... ..  
 Fresh Water Line " " " " " " " "  
 Tropical Line " " " " " " " "  
 Winter Line below " " " " " " " "  
 Winter North Atlantic Line " " " " " " " "

Tropical Fresh Water Freeboard ... ..  
 Fresh Water " " " " " " " "  
 Tropical " " " " " " " "  
 Winter " " " " " " " "  
 Winter North Atlantic " " " " " " " "

1906 7.14 } 5 - 2 - 13/4  
11 - 2 - 33/4

Difference } 3 - 23/4 ✓  
11 - 3/4

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