

Amended Computation

(Comp.).

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

Index. No. 21303  
(For London Office only).

Ship's Name <b>CONNAUGHT.</b>	Official Number <b>132019</b>	Nationality and Port of Registry <b>British Liverpool.</b>	Gross Tonnage <b>2284 1686</b>	Date of Build <b>1912 3</b>	Port of Survey
Dimensions: Length <b>324.7'</b> Breadth <b>41.50'</b> Depth <b>17.92'</b>					Date of Survey <b>2/11/42</b>
Displacement at moulded draught = 85 per cent. of moulded depth <b>3514</b> tons					Surveyor's Signature
Degree of fineness for use with Tables <b>.68 (.599 ACTUAL)</b>					Particulars of Classification <b>+100M with fulboard</b>

Depth for Freeboard (D). Depth ... .. <b>17.92</b> Late ... .. <b>.04</b> on exposed deck <b>3"</b> $\frac{S}{L} = .25 \times .0968 = .02$	Depth correction. (a) Where D is greater than Table depth (D - Table depth) R =  (b) Where D is less than Table depth (if allowed) (Table depth - D) R = <b>(21.65 - 17.98) 2.448 = -9.167</b> <b>3.67</b> If restricted by superstructures <b>Yes, NIL.</b>	Round of Beam correction. Moulded Breadth (B) <b>41.50'</b> Standard Round of Beam = $\frac{B \times 12}{50} =$ <b>9.96"</b> Ship's Round of Beam = <b>4.00"</b> Difference <b>DEFICIENT = 5.96"</b> Restricted to Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{5.96}{4} \times .799 = +.30"$
Depth for Freeboard (D) = <b>17.98</b>		

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
closed ...	<b>48.50</b>	<b>48.50</b>	<b>7.25</b>	<b>✓</b>	<b>48.50</b>
erhang ...	<b>4.00</b>	<b>2.00</b>			<b>2.00</b>
nclosed ...					
verhang ...					
nclosed ...	<b>150.00</b>	<b>150.00</b>	<b>7.25</b>	<b>✓</b>	<b>150.00</b>
erhang aft ...	<b>11.75</b>	<b>8.81</b>			<b>8.81</b>
erhang forward ...	<b>2.50</b>	<b>1.25</b>			<b>1.25</b>
losed <b>OPEN</b> ...	<b>76.50</b>	<b>49.48</b>	<b>10.75</b>	<b>✓</b>	<b>49.48</b>
rhang ...					
t ...					
ward ...					
opening aft ...					
forward ...					
total ...	<b>293.25</b>	<b>260.04</b>			<b>260.04</b>

Standard Height of Superstructure <b>6.75'</b>	
" " R.Q.D. <b>✓</b>	
Deduction for complete superstructure <b>36.98</b>	
Percentage covered $\frac{S}{L} =$ <b>90.32</b>	
" " $\frac{S_1}{L} =$ <b>80.10</b>	
" " $\frac{E}{L} =$ <b>80.10</b>	
Percentage from Table, Line A. <b>✓</b>	
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B. <b>75.42</b>	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required) <b>✓</b>	
Deduction = <b>36.98 x .7542 = - 27.89</b>	

SHEER CORRECTION.

	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
...	<b>42.47</b>	<b>1</b>	<b>42.47</b>	<b>38.00</b>	<b>38.00</b>	<b>1</b>	<b>38.00</b>
P. ...	<b>18.90</b>	<b>4</b>	<b>75.60</b>	<b>8.50</b>	<b>13.43</b>	<b>4</b>	<b>53.72</b>
...	<b>4.67</b>	<b>2</b>	<b>9.34</b>	<b>1.50</b>	<b>3.36</b>	<b>2</b>	<b>6.72</b>
...		<b>4</b>				<b>4</b>	
P. ...	<b>9.34</b>	<b>2</b>	<b>18.68</b>	<b>8.50</b>	<b>8.09</b>	<b>2</b>	<b>16.18</b>
...	<b>37.80</b>	<b>4</b>	<b>151.20</b>	<b>30.50</b>	<b>32.38</b>	<b>4</b>	<b>129.52</b>
...	<b>84.94</b>	<b>1</b>	<b>84.94</b>	<b>70.00</b>	<b>70.00</b>	<b>1</b>	<b>70.00</b>
...			<b>382.23</b>				<b>314.14</b>

Mean actual sheer aft = **DEFICIENT.**  
Mean standard sheer aft =  
Mean actual sheer forward = **DEFICIENT** **.8456 STANDARD**  
Mean standard sheer forward =  
Length of enclosed superstructure forward of amidships = } **DEFICIENT SHEERS**  
aft of " = }  
**SHEERS FORWARD**  
 $\frac{9.34 \times 3 + 28.02 \times 1 + 8.09 \times 3 + 24.27 \times 1}{37.80 \times 3 + 113.40 \times 1 + 32.38 \times 3 + 97.14 \times 1} = \frac{226.36}{266.36} = .8456$   
If limited to maximum allowance of 1½ ins. per 100 ft. **✓**

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{68.09}{18} \left( .75 - \frac{.4516}{2} \right) = +1.13"$   
on account of midship superstructure. **✓**

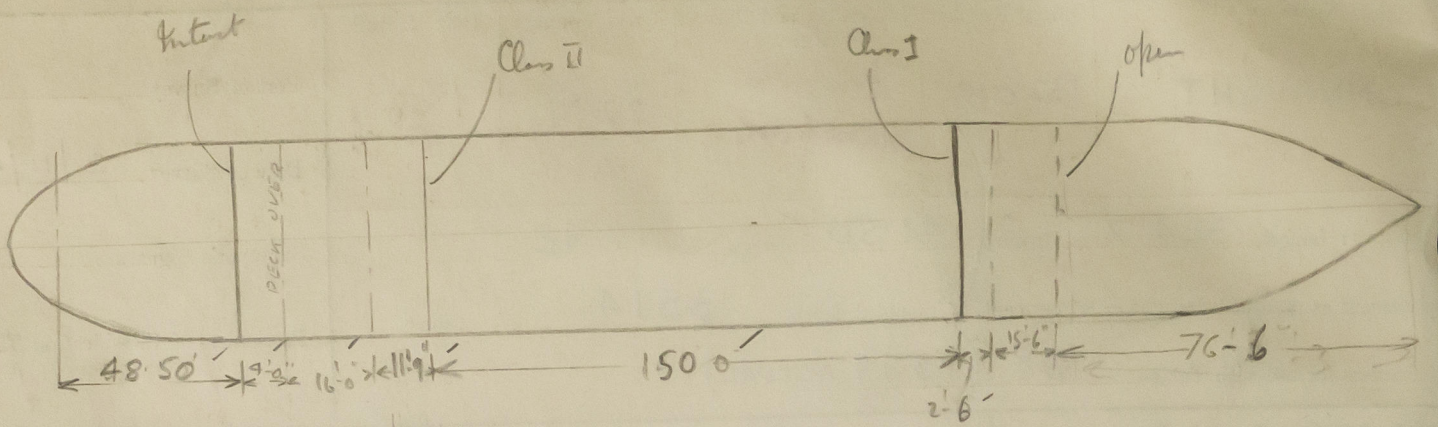
Correction for Tropical Freeboard. Correction for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <b>17.99</b> Summer freeboard = <b>1.98</b> Moulded draught (d) = <b>16.01</b> Tropical freeboard and addition for Freeboard = $\frac{d}{4}$ inches = <b>4.01 = 4"</b> Winter North Atlantic Freeboard (if d) = <b>+ 2"</b>	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 = $\frac{\Delta}{40T}$ inches $\frac{d}{4} = 4"$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient <b>NIL</b> Depth Correction ... .. Deduction for superstructures ... .. Sheer correction ... .. Round of Beam correction ... .. Correction for Thickness of Deck amidships <b>80"</b> Other corrections, scantlings, etc. ... .. Summer Freeboard = <b>23.72</b>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, <b>Wood, Steel, Deck</b> :- Tropical Fresh Water Line above Centre of Disc ... <b>8"</b> ... Fresh Water Line " " ... <b>4"</b> ... Tropical Line " " ... <b>4"</b> ... Winter Line below " " ... <b>4"</b> ... Winter North Atlantic Line " " ... <b>6"</b> ...	Tropical Fresh Water Freeboard ... <b>1 1/11 3/4"</b> Fresh Water " " ... <b>1 1/7 3/4"</b> Tropical " " ... <b>1 1/7 3/4"</b> Winter " " ... <b>2 1/3 3/4"</b> Winter North Atlantic " " ... <b>2 1/5 3/4"</b>
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# "LAOY Connought"

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.



## Equivalent length of Fo'c'sle.

$$\begin{aligned}
 \text{Length open} &= 76.50 \\
 \text{IL} &= 32.47 \\
 &= 44.03 \\
 \frac{1}{2} &= 22.02 \\
 32.47 \times .8456 &= 27.46 \\
 \text{Equivalent length} &= 49.48
 \end{aligned}$$

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £



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