

Preliminary

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index. No. \_\_\_\_\_  
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey _____	
having <u>a poop, bridge and forecabin</u>					Date of Survey <u>14-5-36</u>	
(Type of Superstructures.)					Name of Surveyor _____	
Ship's Name <u>S.H.W.R. Yarn 1525</u>	Nationality and Port of Registry <u>British</u>	Official Number _____	Gross Tonnage _____	Date of Build _____	Particulars of Classification <u>100A</u> <u>(Contemplated)</u>	
Moulded Dimensions: Length <u>411.37</u> Breadth <u>55.79</u> Depth <u>31.00</u>						
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>12150</u> tons						
Coefficient of fineness for use with Tables <u>.703</u>						

<b>Depth for Freeboard (D)</b> Moulded depth ... .. <u>31.00</u> Stringer plate ... .. <u>.40</u> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$  Depth for Freeboard (D) = <u>31.03</u>	<b>Depth correction</b> (a) Where D is greater than Table depth (D - Table depth) R = <u>31.03 - 27.43 = +10.80</u> (b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>3.60</u>  If restricted by superstructures _____	<b>Round of Beam correction</b> Moulded Breadth (B) <u>55.79</u> Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>13.39</u> Ship's Round of Beam = <u>14.00</u> Difference <u>.61</u> Restricted to _____ Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <u><math>\frac{.61^2}{4} \times .4781 = -.07</math></u>
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## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed <u>equivalent</u>	<u>35.94</u>	<u>35.94</u>			<u>35.94</u>
" overhang ...	<u>3.01</u>	<u>1.50</u>	<u>7.98</u>		<u>1.50</u>
R.Q.D. enclosed					
" overhang					
Bridge enclosed...	<u>134.33</u>	<u>134.33</u>	<u>7.98</u>		<u>134.33</u>
" overhang aft ...	<u>2.12</u>	<u>1.63</u>			<u>1.63</u>
" overhang forward					
F'cle enclosed ...	<u>41.17</u>	<u>41.17</u>	<u>7.98</u>		<u>41.17</u>
" overhang ...	<u>.25</u>	<u>.12</u>			<u>.12</u>
Trunk aft ...					
" forward ...					
Tonnage opening aft					
" forward					
Total ...	<u>216.87</u>	<u>214.69</u>			<u>214.69</u>

Standard Height of Superstructure 7.5'

" " R.Q.D. \_\_\_\_\_

Deduction for complete superstructure 42'

Percentage covered  $\frac{S}{L} =$  52.72 (59.2) 35.94

"  $\frac{S_1}{L} =$  52.19 (58.53) 159.83

"  $\frac{E}{L} =$  52.19 (58.53) 1.63

Percentage from Table, Line A. ✓

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. 38.19 (44.53) 240.77

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required) ✓

Deduction = 42 × 38.19 = -16.04 (18.70) ✓

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
...	<u>51.14</u>	<u>1</u>	<u>51.14</u>	<u>48.00</u>	<u>48.00</u>	<u>48.00</u>	<u>1</u>	<u>48.00</u>	<u>48.00</u>
... A.P. ...	<u>22.755</u>	<u>4</u>	<u>91.02</u>	<u>21.50</u>	<u>21.50</u>	<u>21.50</u>	<u>4</u>	<u>86.00</u>	<u>86.00</u>
...	<u>5.625</u>	<u>2</u>	<u>11.25</u>	<u>5.375</u>	<u>5.375</u>	<u>5.375</u>	<u>2</u>	<u>10.75</u>	<u>10.75</u>
...	<u>-</u>	<u>4</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>4</u>	<u>-</u>	<u>-</u>
... F.P. ...	<u>11.25</u>	<u>2</u>	<u>22.50</u>	<u>12.625</u>	<u>12.625</u>	<u>12.625</u>	<u>2</u>	<u>25.25</u>	<u>25.25</u>
...	<u>45.51</u>	<u>4</u>	<u>182.04</u>	<u>50.50</u>	<u>50.50</u>	<u>50.50</u>	<u>4</u>	<u>202.00</u>	<u>202.00</u>
...	<u>102.27</u>	<u>1</u>	<u>102.27</u>	<u>114.00</u>	<u>114.00</u>	<u>114.00</u>	<u>1</u>	<u>114.00</u>	<u>114.00</u>
... al ...	<u>460.22</u>							<u>486.00</u>	<u>486.00</u>

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{25.78}{18} \left( .75 - \frac{.2636}{.4864} \right) = -.701$$

If limited to maximum allowance of 1½ ins. per 100 ft. \_\_\_\_\_

Mean actual sheer aft = Deficient but > .75 standardMean actual sheer forward = ExcessLength of enclosed superstructure forward of amidships = > .1L" " aft of " = > .1L

$$\left( \frac{25.78}{18} (.75 - \frac{.2636}{.4864}) = -.65 \right)$$

<b>Freeboard for Tropical Freeboard.</b> <b>Freeboard for Winter and Winter North Freeboard.</b> Depth to Freeboard Deck = <u>31.03</u> Summer freeboard = <u>5.85</u> Moulded draught (d) = <u>25.18</u> Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>6.29 = 6¼</u> Addition for Winter North Atlantic Freeboard (if required) = _____	<b>Deduction for Fresh Water.</b> 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 = _____	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient $\frac{.703 + .68}{1.36} = \frac{1.383}{1.36} =$ <u>1.017</u> Depth Correction ... .. <u>10.80</u> Deduction for superstructures ... .. <u>(18.70)</u> Sheer correction ... .. <u>(.065)</u> Round of Beam correction ... .. <u>(.00)</u> Correction for Thickness of Deck amidships ... .. Other corrections, scantlings, etc. ... .. Summer Freeboard = <u>70.31</u>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ... .. <u>12½</u>	Tropical Fresh Water Freeboard ... .. <u>4-9¾</u>
Fresh Water Line " " ... .. <u>6¼</u>	Fresh Water " " ... .. <u>5-4</u>
Tropical Line " " ... .. <u>6¼</u>	Tropical " " ... .. <u>5-4</u>
Winter Line below " " ... .. <u>6¼</u>	Winter " " ... .. <u>6-4½</u>
Winter North Atlantic Line " " ... ..	Winter North Atlantic " " ... ..



Particulars of Scuppers and Sanitary Discharge Pipes :—

Particulars of Side Scuttles :—

Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well ... ..						
Forward Well ... ..						
State position of each freeing port ... .. { After Well :— (F. and A. position and height above deck edge) { Forward Well :— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—  Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ... ..								
Bridge, Forward Bulkhead ... ..								
Forecastle Bulkhead ... ..								
Trunk, Aft ... ..								
Trunk, Forward ... ..								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks ... ..								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..								
Deckhouses on Flush Deck Ships ...								
Particulars of Closing Appliances (state if capable of being manipulated from both sides).								
Poop Bulkhead ... ..								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ... ..								
Bridge, Forward Bulkhead ... ..								
Forecastle Bulkhead ... ..								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks ... ..								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..								
Deckhouses on Flush Deck Ships ...								



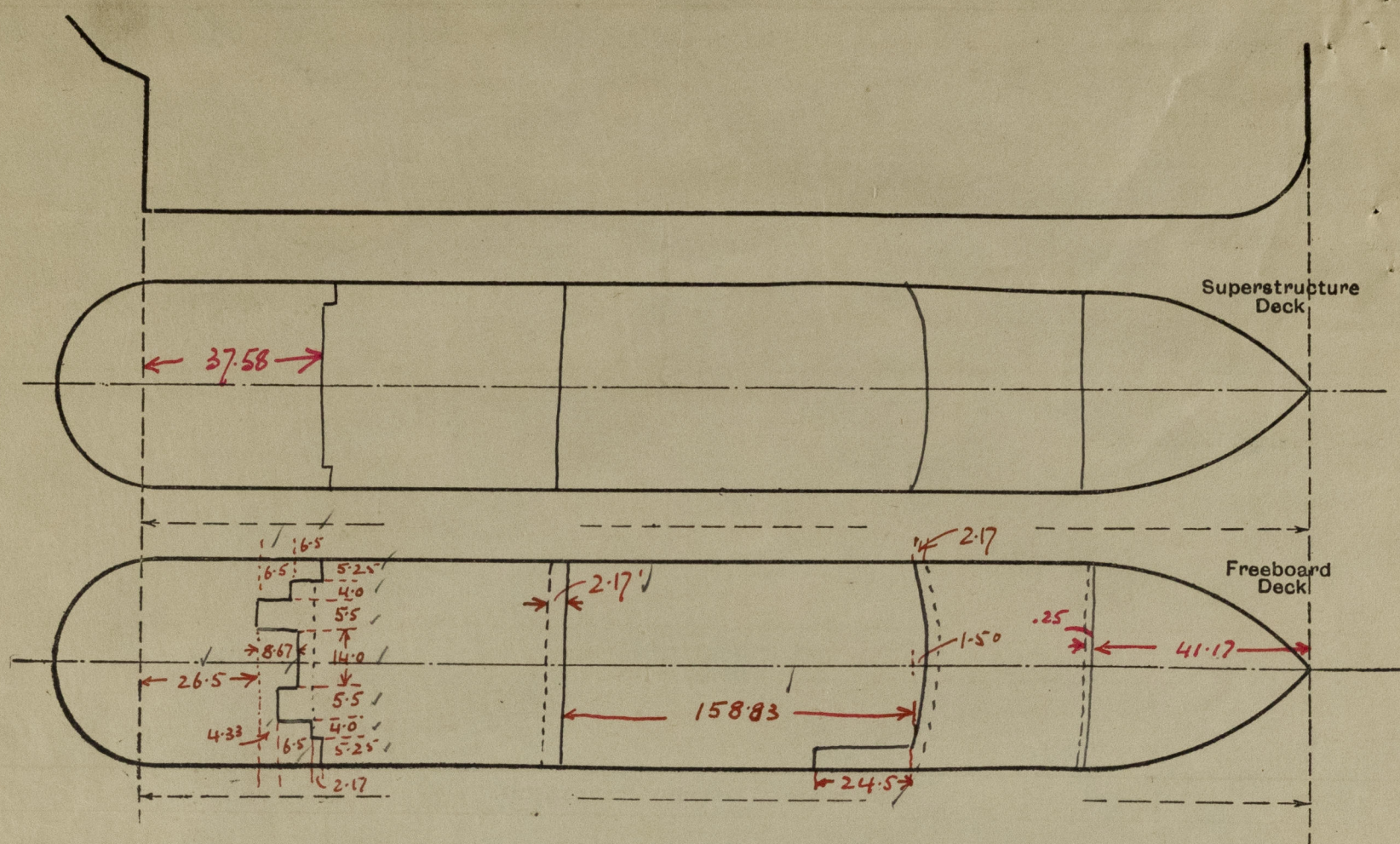
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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



State any special features in the construction of the ship:—

Poop  
 6.5 x 9.25 = 60.12 ✓  
 6.5 x 5.25 = 34.12 ✓  
 8.67 x 14.0 = 121.38 ✓  
 4.33 x 14.75 = 63.87 ✓  
 6.5 x 9.25 = 60.12 ✓  
 2.17 x 5.25 = 11.39 ✓  
 351.00 ÷ 43.5 = 8.07 ✓  
 34.57 equivalent enclosed  
 37.58 equivalent overhang  
 26.50 ✓  
 158.83 ✓  
 24.50 ✓  
 134.33 ✓  
 1.37 to centre of main stack = 35.94 ✓

If bridge plated over starboard side 400 ft  
 $\frac{2}{3} \times 1.50 = \frac{1.00}{1.17}$   
 158.83  
 1.00  
 159.83

Builder's name and yard number

Names of sister ships

Owners Messrs. T. & J. Harrison Ltd. Liverpool.

Fee £

Received by me



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