

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship , Tanker					Port of Survey <u>Sunderland</u>	
having <u>Short Bridge, Raised Quarter Deck and Sunk Forecastle.</u>					Date of Survey <u>While building</u>	
(Type of Superstructures.)					Name of Surveyor <u>Colin Bartlett</u>	
Ship's Name "COLONEL CROMPTON"	Nationality and Port of Registry <u>British</u> <u>London</u>	Official Number <u>163389</u>	Gross Tonnage <u>1,495.</u> <u>1494.51</u>	Date of Build <u>1933.</u>	Particulars of Classification <u>+100A1</u> <u>Class contemplated.</u>	
Moulded Dimensions: Length <u>236.5</u> Breadth <u>38.0</u> Depth <u>17.91</u>						
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>2995</u> tons						
Coefficient of fineness for use with Tables <u>.766</u> ✓						

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>17.91</u>	(a) Where D is greater than Table depth ✓ (D-Table depth) R = $(17.95 - 15.77) / 1.819$ = <u>+ 3.96"</u> ✓	Moulded Breadth (B) <u>38.00</u>
Stringer plate <u>.44</u> <u>.04</u>	(b) Where D is less than Table depth (if allowed) ✓ (Table depth-D) R = <u>✓</u>	Standard Round of Beam = $\frac{B \times 12}{50}$ = <u>9.12</u>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <u>None.</u>	If restricted by superstructures ✓	Ship's Round of Beam = <u>9.5"</u>
Depth for Freeboard (D) = <u>17.95</u> ✓		Difference = <u>.38</u>
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right)$ = $\frac{.38}{4} \times .2284 = - .02"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	✓				
" overhang	✓				
R.Q.D. enclosed	<u>145.1</u>	<u>145.10</u>	<u>4.00</u>		<u>145.10</u>
" overhang	✓				
Bridge enclosed	<u>15.75</u>	<u>15.75</u>	<u>7.00</u>		<u>15.75</u>
" overhang aft	✓				
" overhang forward	✓				
Fore enclosed	<u>21.65</u>	<u>21.65</u>	<u>4.00</u>		<u>14.43</u>
" overhang			<u>6.00</u>		
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	<u>182.50</u>	<u>182.50</u>			<u>175.28</u>

Standard Height of Superstructure 6.00

" " R.Q.D. 3.91

Deduction for complete superstructure 29.65

Percentage covered $\frac{S}{L} = 77.17\%$ ✓

" " $\frac{S_1}{L} = 77.17\%$ ✓

" " $\frac{E}{L} = 74.12\%$ ✓

Percentage from Table, Line A. 68.07% ✓
(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 = 29.65 × .6807 = -20.18"

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>33.65</u>	1		<u>33.65</u>	<u>18.00</u>	<u>19.08</u>	1		<u>19.08</u>
$\frac{1}{2}$ L from A.P.	<u>14.97</u>	4		<u>59.88</u>	<u>8.00</u>	<u>8.49</u>	4		<u>33.96</u>
$\frac{2}{3}$ L "	<u>3.70</u>	2		<u>7.40</u>	<u>2.00</u>	<u>2.10</u>	2		<u>4.20</u>
Amidships	✓	4		✓	✓	✓	4		✓
$\frac{2}{3}$ L from F.P.	<u>7.40</u>	2		<u>14.80</u>	<u>6.33</u>	<u>6.33</u>	2		<u>12.66</u>
$\frac{1}{2}$ L "	<u>29.95</u>	4		<u>119.80</u>	<u>25.37</u>	<u>25.37</u>	4		<u>101.48</u>
F.P.	<u>67.30</u>	1		<u>67.30</u>	<u>57.00</u>	<u>57.00</u>	1		<u>57.00</u>
Total				<u>302.83</u>					<u>278.38</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{84.45}{18} \left(.75 - \frac{.3858}{2} \right) = + 1.71"$

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.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 21.95 Ft.

Summer freeboard = 5.139

Moulded draught (d) = 16.5356

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 4.13 = 4.1"

Addition for Winter North Atlantic Freeboard (if required) = 2"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 3312$

Tons per inch immersion at summer load water line

$T = 18.33$

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

= $\frac{3312}{40 \times 18.33}$ = 4.52"

= 4.5"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	<u>3.96</u>	✓
Deduction for superstructures	<u>-20.18</u>	✓
Sheer correction	<u>1.71</u>	
Round of Beam correction	<u>.02</u>	
Correction for Thickness of Deck amidships	<u>48.00</u>	
Other corrections, scantlings, etc.	<u>.47</u>	
	<u>53.69</u>	<u>20.20</u>

Summer Freeboard = 65.07 64.81

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

Tropical Fresh Water Line above Centre of Disc	<u>8.14</u>	Tropical Fresh Water Freeboard	<u>5'-5" 4 3/4</u>
Fresh Water Line " "	<u>4.2</u>	Fresh Water " "	<u>4'-8"</u>
Tropical Line " "	<u>4.4</u>	Tropical " "	<u>5'-0 1/4</u>
Winter Line below " "	<u>4.4</u>	Winter " "	<u>5'-0 1/2</u>
Winter North Atlantic Line " "	<u>6.14</u>	Winter North Atlantic " "	<u>5'-11"</u>

Particulars of Scuppers and Sanitary Discharge Pipes:—

One 4" Sanitary Discharge from Bridge (two decks filled with valve on ship's side and trap. ✓

Particulars of Side Scuttles:—

Angled side scuttles with hinged deadlights, strongly constructed, fitted in way of crew's accommodation aft and in Bridge. ✓

Particulars of Guard Rails:—

Forecastle. Side plating is raised 21" above deck and a rail on top making total height 39 ins. stanchions to rail 4 ft. apart. ✓
Forward well. Bulwarks 48" x 25. Rail 5 x 3 x 34 B.G. 7" x 40 B.P. Stanchions 6 ft apart.
Bridge. Bulwarks 42" x 30. Rail 5 x 3 x 34 B.G. 6 x 30 B.P. Stanchions 6 ft apart.
Raised Quarter Deck. Bulwarks 40" x 25. Rail 5 x 3 x 34 B.G. 6 x 30 B.P. " 6 ft apart. ✓

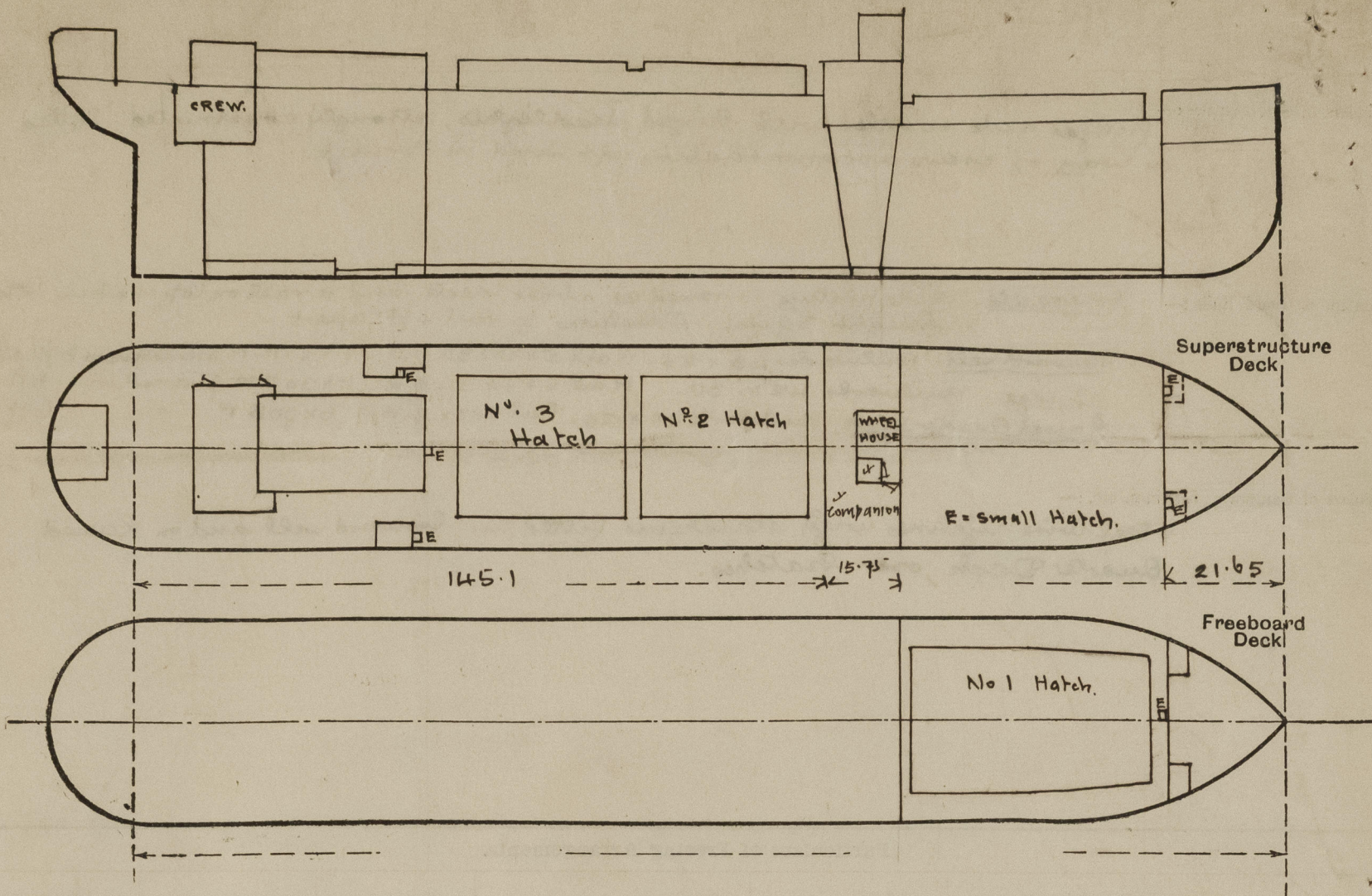
Particulars of Gangways, Lifelines, etc.:—

Steel wire lifelines with stanchions fitted in forward well and on Raised Quarter Deck, over hatches. ✓

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	145.1. ✓	40"	27'0" x 7" 33'9" x 9" plus open rails 12'6" long	1 1 1	35.44 ✓ plus open rails	29.02. ✓
Forward Well	51.5 ✓	48"	6'9" x 8½" 25'0" x 8½"	1 1	22.48 ✓	11.65. ✓
State position of each freeing port { After Well: — ^{A.P.} 12'6" — ^{12'6"} open rails 16'8" — ^{14'6"} 15'3" K-slot 27'0" — ^{12'6"} 12'6" — ^{12'6"} 23'9" — ^{12'6"} 4'7" — ^{12'6"} 12'6"						
(F. and A. position and height above deck edge) { Forward Well: — ^{R.O.S.} 2'0" K-slot 6'9" — ^{4'6"} 4'6" 1 slot 25'0" — ^{12'6"} 12'6" — ¹						

Calmar Crampston

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:—

Displacement at 16 ft: actual draught = 3,162 tons. T.P.I. 18.33.
 " " 17 ft: " = 3,382 " T.P.I. 18.33.

The line of the Raised Quarter Deck continues the Sheers of Upper Deck as reported under 'Actual Ordinates' of Sheers.

Builder's name and yard number *Messrs S. P. Austin & Son Ltd. Yard No: 327.*

Names of sister ships *None.*

Owners *London Power Co. Ltd.*

Fee £ *10-0-0.*

Received by me

will be charged on completion.



© 2021

Lloyd's Register Foundation