

Preliminary
Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

35285
 Index No. ~~858~~
 (For London Office only.)

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~
 having *Complete Superstructure with Tonnage Opening aft.*

Port of Survey _____
 Date of Survey *28/4/34.*
 Name of Surveyor _____
 Particulars of Classification *100 A1 with Fbd. class contemplated.*

(Type of Superstructures.) _____

Builder's ~~Ship's~~ Name *Bartram & Sons. No 280.* Nationality and Port of Registry _____ Official Number _____ Gross Tonnage _____ Date of Build _____

TO CR. OF RUDDER STOCK

Moulded Dimensions: Length *410.75* Breadth *56.29* Depth *27.67*
 Moulded displacement at moulded draught = 85 per cent. of moulded depth *11420 (given)* tons
 Coefficient of fineness for use with Tables *.735*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <i>27.67</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(27.70 - 27.38) 3 = +.96"</i>	Moulded Breadth (B) = <i>56.29</i>
Stringer plate <i>assumed</i> <i>.03</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <i>.32</i>	Standard Round of Beam = $\frac{B \times 12}{50} = 13.51"$
Sheathing on exposed deck <input checked="" type="checkbox"/>	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = <i>13.00"</i>
$T \left(\frac{L-S}{L} \right) =$		Difference <i>deficient</i> = <i>.51"</i>
Depth for Freeboard (D) = <i>27.70</i>		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.51}{4} \times .0063 = 2il.$

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop enclosed <i>27.25</i>	<i>27.25</i>	<i>8.00</i>	<input checked="" type="checkbox"/>	<i>27.25</i>	<i>7.50'</i>
" overhang					" " R.Q.D. <input checked="" type="checkbox"/>
R.Q.D. enclosed					Deduction for complete superstructure <i>42.00"</i>
" overhang					Percentage covered $\frac{S}{L} = 100.00$
Bridge enclosed... .. <i>378.33</i>	<i>378.33</i>	<i>8.50</i>	<input checked="" type="checkbox"/>	<i>378.33</i>	" " $\frac{S_1}{L} = 99.37$
" overhang aft					" " $\frac{E}{L} = 99.37$
" overhang forward					Percentage from Table, Line A. <i>99.22</i>
F'cle enclosed					(corrected for absence of forecastle (if required))
" overhang					Percentage from Table, Line B. <input checked="" type="checkbox"/>
Trunk aft					(corrected for absence of forecastle (if required)) <input checked="" type="checkbox"/>
" forward	<i>1/2 DIFF.</i>				Interpolation for bridge less than .2L (if required) <input checked="" type="checkbox"/>
Tonnage opening aft <i>5.17</i>	<i>2.58</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>2.58</i>	Deduction = <i>42.00 x .9922 = 41.67"</i>
" " forward					
Total <i>410.75</i>	<i>408.16</i>			<i>408.16</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product	Mean actual sheer aft = <i>Excess</i>
A.P.	<i>51.75</i>	<i>1</i>	<i>51.75</i>	<i>+12.00</i>	<i>119.00</i>	<i>1</i>	<i>119.00</i>	Mean actual sheer forward = <i>Excess</i>
$\frac{1}{4}$ L from A.P.	<i>23.03</i>	<i>4</i>	<i>92.12</i>	<i>49.00</i>	<i>52.95</i>	<i>4</i>	<i>211.80</i>	Length of enclosed superstructure forward of amidships = <i>6.1.1.</i>
$\frac{3}{8}$ L "	<i>5.69</i>	<i>2</i>	<i>11.38</i>	<i>12.00</i>	<i>13.09</i>	<i>2</i>	<i>26.18</i>	" " aft of " = <i>6.1.1.</i>
Amidships	<i>-</i>	<i>4</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>4</i>	<i>-</i>	
$\frac{3}{8}$ L from F.P.	<i>11.38</i>	<i>2</i>	<i>22.76</i>	<i>13.50</i>	<i>17.16</i>	<i>2</i>	<i>34.32</i>	
$\frac{1}{4}$ L "	<i>46.06</i>	<i>4</i>	<i>184.24</i>	<i>58.00</i>	<i>69.42</i>	<i>4</i>	<i>277.68</i>	
F.P.	<i>103.50</i>	<i>1</i>	<i>103.50</i>	<i>144.00</i>	<i>156.00</i>	<i>1</i>	<i>156.00</i>	
Total			<i>465.75</i>	<i>+12.00</i>			<i>824.98</i>	

Actual height of superstructure = *8'6"*
 Standard " " " = *7'6"*
 Excess = *1'0"*
 Excess = *12"*

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{359.23}{18} (.75 - .50) = -4.99"$
 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 <i>corrected for Flush Deck (if required)</i>	Total
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.735 + .68}{1.36} = \frac{1.415}{1.36}$	<i>74.84</i>
Depth to Freeboard Deck = <i>27.70</i>	$\Delta =$	Depth Correction <i>.96</i>	<i>74.87</i>
Summer freeboard = <i>2.69</i>	Tons per inch immersion at summer load water line	Deduction for superstructures <i>-</i>	
Moulded draught (d) = <i>25.01</i>	T =	Sheer correction <i>- 41.67</i>	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>6.25 = 6\frac{1}{4}"</i>	Deduction = $\frac{\Delta}{40T}$ inches = $\frac{d}{4} = 6\frac{1}{4}"$	Round of Beam correction <i>- 4.99</i>	
Addition for Winter North Atlantic Freeboard (if required) = <input checked="" type="checkbox"/>		Correction for Thickness of Deck amidships <i>-</i>	
		Other corrections, scantlings, etc. <i>-</i>	
		<i>.96 46.66 - 45.40</i>	
		Summer Freeboard = <i>32.14</i>	

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

Tropical Fresh Water Line above Centre of Disc	<i>12\frac{1}{2}"</i>	Tropical Fresh Water Freeboard	<i>2'8\frac{1}{4}"</i>
Fresh Water Line " "	<i>6\frac{1}{4}"</i>	Fresh Water " "	<i>1'9\frac{3}{4}"</i>
Tropical Line " "	<i>6\frac{1}{4}"</i>	Tropical " "	<i>2'-2"</i>
Winter Line below " "	<i>6\frac{1}{4}"</i>	Winter " "	<i>2'-2"</i>
Winter North Atlantic Line " "	<i>6\frac{1}{4}"</i>	Winter North Atlantic " "	<i>3'2\frac{1}{2}"</i>

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS.									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	}	Height above Deck	...	...	...	...	...	...	...
		Thickness	Sides	...	...	...	...	...	...
			Ends	...	...	...	...	...	...
		Stiffeners	...	...	...	...	...	...	...
		Brackets, Stays	...	...	...	...	...	...
HATCH BEAMS	}	Number	...	...	...	...	...	...	...
		Spacing	...	...	...	...	...	...	...
		Scantling and Sketch	...	...	...	...	...	...	...
		
		Bearing Surface	...	...	...	...	...	...
FORE AND AFTERS	}	Number	...	...	...	...	...	...	...
		Spacing	...	...	...	...	...	...	...
		Unsupported Lengths	...	...	...	...	...	...	...
			Scantling* and Sketch	...	...	...	...	...	...
		Bearing Surface	...	...	...	...	...	...
HATCH COVERS	}	Material	...	...	...	...	...	...	...
		Thickness	...	...	...	...	...	...	...
		How fitted	...	...	...	...	...	...	...
		Bearing Surface	...	...	...	...	...	...	...
Spacing of Cleats	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...

*Are wood fore and afters steel shod at all bearing surfaces?
 Are battens and wedges efficient and in good condition?
 Are tarpaulins in good condition and in accordance with rule requirements?
 Are lashings provided in accordance with rule requirements?

Particulars of fiddley, funnel and ventilator coamings :—

Particulars of Flush Bunker Scuttles :—

Particulars of Companionways :—

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :—

Particulars of Gangway Cargo and Coaling Ports :—

Particulars of Scuppers and Sanitary Discharge Pipes :—

Particulars of Side Scuttles :—

Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

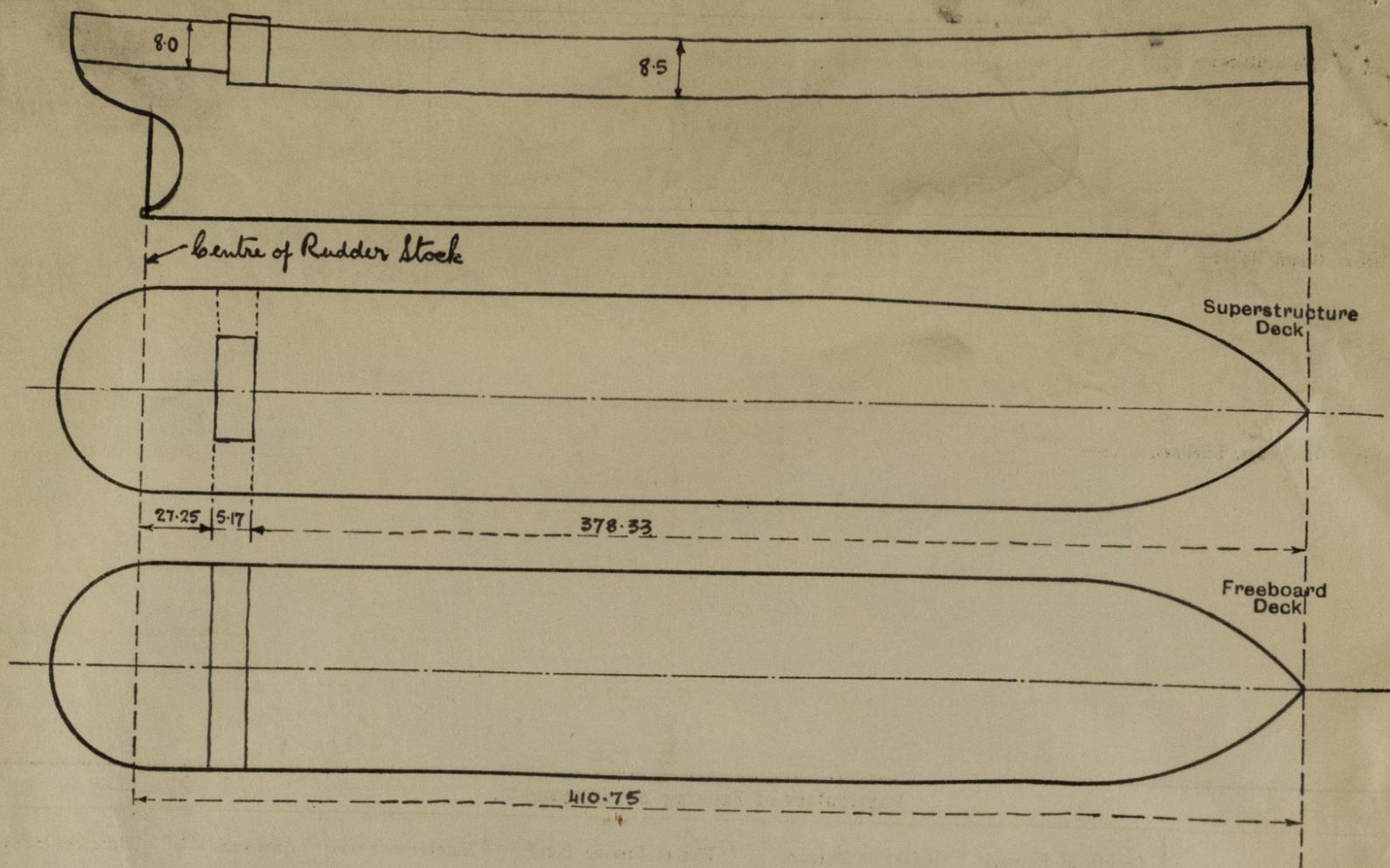
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well
Forward Well

State position of each freeing port (F. and A. position and height above deck edge) } After Well :—
 } 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 Freeboard or Raised Quarter Decks
Exposed Machinery Casings on Superstructure 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 Freeboard or Raised Quarter Decks	...
Exposed Machinery Casings on Superstructure Decks	...
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...
Deckhouses on Flush Deck Ships	...

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:—

Builder's name and yard number

Names of sister ships

Owners

Fee £

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