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Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having POOP, BRIDGE + FORECASTLE

Port of Survey Falmouth

Date of Survey 25.7.33

Name of Surveyor Arthur Scullard + G. B. Vaux

Particulars of Classification 100 A.1.
5.5. HUL. No. 3-5.31

FARNHAM (Type of Superstructures.)

Ship's Name SS. S. "Putney" Nationality and Port of Registry British London Official Number 132880 Gross Tonnage 4793 Date of Build 1913/3

Moulded Dimensions: Length 379.5, Breadth 50.62, Depth 30.4
Moulded displacement at moulded draught = 85 per cent. of moulded depth 116.15 tons
Coefficient of fineness for use with Tables .82

Depth for Freeboard (D)

Moulded depth 30.33
Stringer plate04
Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$ ✓
Depth for Freeboard (D) = 30.37

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = $(30.37 - 25.3) 2.919$
= + 14.80
(b) Where D is less than Table depth (if allowed)
(Table depth-D) R = ✓
If restricted by superstructures ✓

Round of Beam correction

Moulded Breadth (B) 50.62
Standard Round of Beam = $\frac{B \times 12}{50} =$ 12.15
Ship's Round of Beam = 13 1/8
Difference .97 excess
Restricted to
Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.97}{4} \times .5334 =$ -.13

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>33.9</u>	<u>33.75</u>	<u>7.6</u>		<u>33.75</u>
" overhang ...	<u>3</u>	<u>.12</u>	<u>✓</u>		<u>.12</u>
R.Q.D. enclosed ...	<u>✓</u>		<u>✓</u>		
" overhang ...	<u>✓</u>		<u>✓</u>		
Bridge enclosed...	<u>110.6</u>	<u>110.50</u>	<u>7.6</u>		<u>110.50</u>
" overhang aft ...	<u>3</u>	<u>.19</u>	<u>✓</u>		<u>.19</u>
" overhang forward ...	<u>3</u>	<u>.12</u>	<u>✓</u>		<u>.12</u>
F'cle enclosed <u>4.3</u> ...	<u>37.3</u>	<u>32.37</u>	<u>7.6</u>		<u>32.37</u>
" overhang <u>10</u> ...	<u>10</u>		<u>✓</u>		
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<u>177.37</u>	<u>177.05</u>			<u>177.05</u>

Standard Height of Superstructure 7.295
" " R.Q.D. ✓
Deduction for complete superstructure 40.63
Percentage covered $\frac{S}{L} =$ 46.74%
" " $\frac{S_1}{L} =$ 46.66%
" " $\frac{E}{L} =$ 46.66%
Percentage from Table, Line A.
(corrected for absence of forecastle (if required))
Percentage from Table, Line B.
(corrected for absence of forecastle (if required)) 33.16%
Interpolation for bridge less than 2L (if required)
Deduction = $40.63 \times .3316 =$ - 13.47

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>47.95</u>	1		<u>47.95</u>	<u>65.38</u>	<u>65.38</u>	1		<u>65.38</u>
1/4 L from A.P. ...	<u>21.34</u>	4		<u>85.36</u>	<u>27.65</u>	<u>27.65</u>	4		<u>110.60</u>
3/4 L " ...	<u>5.27</u>	2		<u>10.54</u>	<u>6.91</u>	<u>6.91</u>	2		<u>13.82</u>
Amidships ...	<u>✓</u>	4		<u>✓</u>	<u>✓</u>	<u>✓</u>	4		<u>✓</u>
3/4 L from F.P. ...	<u>10.54</u>	2		<u>21.08</u>	<u>12.96</u>	<u>12.96</u>	2		<u>25.92</u>
1/4 L " ...	<u>42.68</u>	4		<u>170.72</u>	<u>57.54</u>	<u>57.54</u>	4		<u>207.36</u>
F.P. ...	<u>95.90</u>	1		<u>95.90</u>	<u>121.62</u>	<u>121.62</u>	1		<u>121.62</u>
Total ...				<u>431.53</u>					<u>544.70</u>

Mean actual sheer aft = Excess
Mean standard sheer aft
Mean actual sheer forward = Excess
Mean standard sheer forward
Length of enclosed superstructure forward of amidships = > .1L
" " aft of " = > .1L

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{113.15}{18} \left(.75 - \frac{.2337}{.5163} \right) = - 3.25"$$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

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

Depth to Freeboard Deck = 30.37 Ft.
Summer freeboard = 5.83
Moulded draught (d) = 24.54

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $\frac{6.13}{4} =$ 1.53 inches
Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water.
Displacement in salt water at summer load water line
 $\Delta =$ 11100
Tons per inch immersion at summer load water line
 $T =$ 39.58
Deduction = $\frac{\Delta}{40T}$ inches = $\frac{11100}{40 \times 39.58} =$ 7 inches

TABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for coefficient $\frac{.82 + .68}{1.36}$
Depth Correction 14.80
Deduction for superstructures - 13.47
Sheer correction - 3.25
Round of Beam correction - .13
Correction for Thickness of Deck amidships
Other corrections, scantlings, etc.
14.80 16.85 - 2.05
Summer Freeboard = 67.92

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

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

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Lloyd's Register
Foundation

Particula

Foreca

Shin

Typ

Poor

R.Q.

Brid

F'cle

Tru

Ton

5m,4

10

Forecastle	1	Sanitary discharge P+S about 21" above 7 th deck. from W.C.	} Storm valves fitted.
Bridge	1	" " starboard side " " " " " Saloon W.C.	
	1	" " P+S " " " " " Officers & Eng's W.C.	

In superstructures only + efficient.

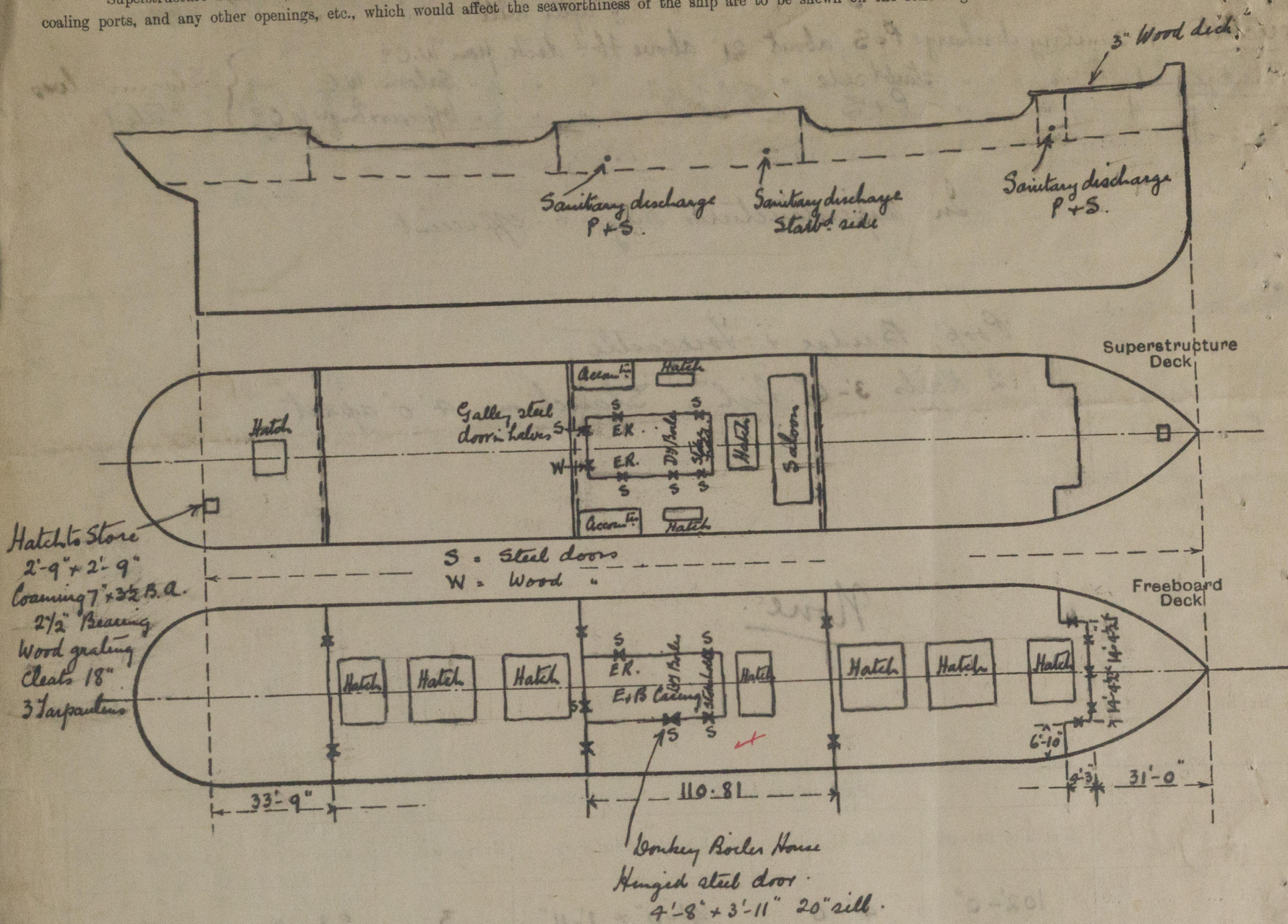
2 Rails 3'-6" high. Stanchions 4'-0" apart.

Provision made for rigging lifelines in both
wells & on both sides of ship.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	$\frac{1}{2}"$	$\frac{3}{8}"$	$6" \times \frac{O.A.}{3\frac{1}{2}} \times \frac{1}{2}$	$28"$	none	$4'-7\frac{1}{2}" \times 3'-0"$	$21"$	$7'-6"$
Raised Quarter Deck Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead	$\frac{7}{16}"$	$\frac{5}{16}"$	$3" \times \frac{O.A.}{3} \times \frac{3}{8}"$	$30"$	none	$4'-7\frac{1}{2}" \times 3'-0"$ $4'-4" \times 2'-0"$	$24\frac{1}{2}"$ $25"$	$7'-6"$
Bridge, Forward Bulkhead	$\frac{1}{2}"$	$\frac{7}{16}"$	$8" \times \frac{3\frac{1}{2}}{B.A.}$	$30"$	bkts T & B.	$4'-9\frac{1}{2}" \times 3'-0"$	$22"$	$7'-6"$
Forecastle Bulkhead	$\frac{5}{16}"$	$\frac{5}{16}"$	$3" \times \frac{O.A.}{3} \times \frac{3}{8}"$	Steel Bulkhead	none	$4'-6" \times 2'-0"$	$21"$	$7'-6"$
Trunk, Aft	✓	✓	✓	✓	✓	✓	✓	✓
Trunk, Forward	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Super-structure Decks	$\frac{1}{2}"$	$\frac{5}{16}"$	$4" \times \frac{O.A.}{3\frac{1}{2}} \times \frac{1}{2}$	$40"$	none	$4'-4" \times 2'-0"$	$22\frac{1}{2}"$	$7'-0"$
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	$\frac{1}{2}"$	$\frac{5}{16}"$	$4" \times \frac{O.A.}{3\frac{1}{2}} \times \frac{1}{2}$	$40"$	none	$4'-4" \times 2'-0"$	$22\frac{1}{2}"$	$7'-6"$
Deckhouses on Flush Deck Ships ...	✓	✓	✓	✓	✓	✓	✓	✓

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	Steel plates each with 2 strong backs. manipulated from inside.
Raised Quarter Deck Bulkhead ... ✓	manipulated from both sides
Bridge, After Bulkhead	1 Hinged steel door S.S. to store + steel plates each with 2 strongbacks ✓
Bridge, Forward Bulkhead	Hinged steel doors each with 2 strongbacks manipulated from inside ✓
Forecastle Bulkhead	Solid Teakwood doors 1½" thick manipulated from both sides ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ... ✓	
Exposed Machinery Casings on Super-structure Decks	Hinged steel doors to Engine Room manipulated from both sides ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Hinged steel door to Engine Room P.S. " " " "
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 shown on the following sketches:—



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

Vessel examined Afloat River Fal.

Forecastle	31.00
S. H. 4.25 x 6.83	1.37
21.21	32.37

✓ Four coaling hatchways in the Bridge space.
 One each side 6'-0" x 3'-0". Coaming 9" x 3 1/2" x 50 T. 2 1/2" wood cover. 2 1/2" bearing. cleats 2 1/2" 1 tarp.
 " " 16'-0" x 4'-0" " 7" x 3" x 40 T. 2 1/2" " " 3" " cleats 18" 1 tarp.

Builder's name and yard number

Names of sister ships

Owners

Fee £

12 15 0

Received by me

Exp.

5 - 6.

This report refers to S.S. "Putney"

Messrs. Watts Shipping Co. Ltd (Watts, Watts & Co. Ltd Mgrs)



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