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Index. No. 27499.  
(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

N<sup>o</sup> 30914

Computation of Freeboard for Steamer, ~~Sailing Ship~~, Tanker  
having Prop, Bridge, Forecastle & Raised Quarter Deck.

**ASHGATE** (Type of Superstructures.)

Ship's Name <u>"S. WHITWOOD"</u>	Nationality and Port of Registry <u>BRITISH LONDON</u>	Official Number <u>143104</u>	Gross Tonnage <u>1926</u>	Date of Build <u>1919</u> <u>4 mo.</u>
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Moulded Dimensions: Length 267.75 Breadth 37.66 Depth 19.75  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 3768 tons  
Coefficient of fineness for use with Tables 774

Port of Survey Sunderland

Date of Survey 11<sup>th</sup> May 1932

Name of Surveyor James Dickie

Particulars of Classification +100A1.  
2.2.10.3-232

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <u>19.75</u>	(a) Where D is greater than Table depth (D-Table depth) R = <u>(19.79-17.85) 2.059 = + 3.99"</u>	Moulded Breadth (B) <u>37' 8"</u> Standard Round of Beam = $\frac{B \times 12}{50} = \frac{9.10}{50}$ Ship's Round of Beam = <u>9<math>\frac{1}{2}</math></u> Difference = <u>.40</u>
Stringer plate ... <u>.54</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>✓</u>	Restricted to <u>✓</u>
Sheathing on exposed deck <u>None</u> $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures <u>✓</u>	Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.40^2}{4} \times .3051 = -.03$
Depth for Freeboard (D) = <u>19.79</u>		

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>24.08</u>	<u>24.08</u>	<u>7.0</u>	<u>✓</u>	<u>24.08</u>
" overhang ...	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
R.Q.D. enclosed ...	<u>82.25</u>	<u>82.25</u>	<u>3.75</u>	<u>3.75/4.237</u>	<u>72.80</u>
" overhang ...	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
Bridge enclosed...	<u>50.91</u>	<u>50.91</u>	<u>7.0</u>	<u>✓</u>	<u>50.91</u>
" overhang aft ...	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
" overhang forward	<u>27.37</u>	<u>27.37</u>	<u>7.0</u>	<u>✓</u>	<u>27.37</u>
F'cle enclosed ...	<u>26.31</u>	<u>1.42</u>	<u>✓</u>	<u>✓</u>	<u>1.42</u>
" overhang ...	<u>3.21</u>	<u>2.85</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
Trunk aft ...	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
" forward ...	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
Tonnage opening aft ...	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
" " forward	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>
Total ...	<u>187.46</u>	<u>186.03</u>	<u>✓</u>	<u>✓</u>	<u>176.58</u>

Standard Height of Superstructure 6.18

" " R.Q.D. 4.237

Deduction for complete superstructure 32.78

Percentage covered  $\frac{S}{L} = \frac{176.58}{186.03} = 94.93\%$

" "  $\frac{S_1}{L} = \frac{186.03}{186.03} = 100\%$

" "  $\frac{E}{L} = \frac{176.58}{186.03} = 94.93\%$

Percentage from Table, Line A.  
(corrected for absence of forecastle (if required))

Percentage from Table, Line B.  
(corrected for absence of forecastle (if required)) 56.13%

Interpolation for bridge less than 2L (if required)

Deduction = 32.78 x 56.13 = - 18.40

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>36.78</u>	1	<u>✓</u>	<u>36.78</u>	<u>45.00</u>	<u>42.00</u>	1	<u>✓</u>	<u>42.00</u>
$\frac{1}{2}$ L from A.P. ...	<u>16.36</u>	4	<u>✓</u>	<u>65.44</u>	<u>20.37</u>	<u>19.75</u>	4	<u>✓</u>	<u>79.00</u>
$\frac{2}{3}$ L " ...	<u>4.05</u>	2	<u>✓</u>	<u>8.10</u>	<u>5.25</u>	<u>4.93</u>	2	<u>✓</u>	<u>9.86</u>
Amidships ...	<u>✓</u>	4	<u>✓</u>	<u>✓</u>	<u>0</u>	<u>✓</u>	4	<u>✓</u>	<u>✓</u>
$\frac{2}{3}$ L from F.P. ...	<u>8.09</u>	2	<u>✓</u>	<u>16.18</u>	<u>10.37</u>	<u>9.18</u>	2	<u>✓</u>	<u>18.36</u>
$\frac{1}{2}$ L " ...	<u>32.73</u>	4	<u>✓</u>	<u>130.92</u>	<u>37.00</u>	<u>36.73</u>	4	<u>✓</u>	<u>146.92</u>
F.P. ...	<u>73.56</u>	1	<u>✓</u>	<u>73.56</u>	<u>84.00</u>	<u>84.00</u>	1	<u>✓</u>	<u>84.00</u>
Total ...	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>330.98</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>380.14</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{49.16}{18} \left( \frac{75-35}{2} \right) = -1.09 \times \frac{.187}{.200} = -1.02$

If limited on account of midship superstructure. Yes.

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 = 19.79  
Summer freeboard = 1.92  
Moulded draught (d) = 17.87

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 4.47 = 4 $\frac{1}{2}$   
Addition for Winter North Atlantic Freeboard (if required) = 3

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$  4048  
Tons per inch immersion at summer load water line

$T =$  20.75  
Deduction =  $\frac{\Delta}{40T}$  inches = 4.88 = 5

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction ...	<u>3.99</u>	<u>-</u>
Deduction for superstructures ...	<u>-</u>	<u>18.40</u>
Sheer correction ...	<u>-</u>	<u>1.02</u>
Round of Beam correction ...	<u>-</u>	<u>.03</u>
Correction for Thickness of Deck amidships ...	<u>-</u>	<u>-</u>
Other corrections, scantlings, etc. ...	<u>-</u>	<u>-</u>
	<u>3.99</u>	<u>19.45</u>

Summer Freeboard = 23.06

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck: 1' 11"

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

Tropical Fresh Water Freeboard ...  
Fresh Water " " ...  
Tropical " " ...  
Winter " " ...  
Winter North Atlantic " " ...

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## PARTICULARS OF PROTECTION TO OPENINGS, ETC.

### HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS					
Description of Hatchway	...	...	<b>FORE WALL</b>	<b>POISED PORTER DACK</b>	
Dimensions of Hatchway	...	...	Nº 1.	Nº 2.	Nº 3.
	...	...	Nº 4.		
COAMINGS	Height above Deck ...	48"	48"	42"	42"
	Thickness { Sides ...	.50"	.50"	.44"	.44"
	{ Ends ...	.44"	.44"	.44"	.44"
	Stiffeners ...	7x3	7x3	4x4	4x4
	Brackets, Stays ...	5x4 FE 2 @ sides & one forward	5x4 SS 3 @ sides, one forward	5x4 FE 2 @ sides & one forward	5x4 FE 2 @ sides
HATCH BEAMS	Number ...	4	5	4	4
	Spacing ...	5' 10 1/2"	5' 5 1/2"	5' 10 1/2"	5' 6 1/2"
	Scantling and Sketch	33 x 28 1/2" x .40 L 4 x 3 x .44 6 1/2 x 3 x .50	33 x 28 1/2" x .40 5 x 3 x .44 6 1/2 x 3 x .50	35 x 30 1/2" x .40 5 x 3 x .44 6 1/2 x 3 x .50	33 x 28 1/2" x .40 4 x 3 x .44 6 1/2 x 3 x .50
	Bearing Surface ...	3"	3"	3"	3"
FORE AND AFTERS	Number ...				
	Spacing ...				
	Unsupported Lengths				
	Scantling* and Sketch	NONE			
	Bearing Surface ...				
HATCH COVERS	Material ...	Pl. Pl.	Pl. Pl.	Pl. Pl.	Pl. Pl.
	Thickness ...	3"	3"	3"	3"
	How fitted	F + A	F + A	F + A	F + A
	Bearing Surface ...	3 1/2"	3 1/2"	3 1/2"	3 1/2"
Spacing of Cleats	...	24"	24"	24"	24"
Number of Tarpaulins	...	2	2	2	2

Are wood fore and afters steel shod at all bearing surfaces? ☒ Yes  
Are battens and wedges efficient and in good condition? ☒ Yes  
Are caulkins in good condition and in accordance with rule requirements? ☒ Yes  
Are dunnage provided in accordance with rule requirements? ☒ Yes

One Lateral inside forecastle 2'0" x 2'6" angle coaming 3'5" x 3'0" 1/2" coaming, 1/2" dunnage  
2 Bundles Lateral on bridge deck 5'10" x 2'1/2" coaming 3'0" x 3'0",  
2 1/2" coaming Lateral on deck 4'0" x 4'0" battens  
One staylight on poop deck 5'8" x 5'6" steel coaming 3'0" x 2'4" with  
deck 15'0" x 7'0"

ars of fiddle, funnel and ventilator coamings:— *Stokehold gratings covered by strong steel hinged covers. Fiddle & Funnel Ventilators in efficient condition. Bulk in skylight of steel strongly constructed.*

Particulars of Flush Bunker Scuttles:—

NONE

Particulars of Companionways :—

One steel companion 4'-5" x 4'-0" x 5'-9" high, on poop deck leading to accommodation, double wood panel door 1/2" thick with 15" sill & doors opened from both sides.

Two steel companions 3'-11" x 2'-6" x 5'-3" high, on bridge deck leading to Engine & Officer accommodation, wood panel door 1/2" thick with 15" sill & doors opened from both sides.

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

[illegible]

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

[illegible]

Particulars of Gangway Cargo and Coaling Ports:—

NONE

## Particulars of Scuppers and Sanitary Discharge Pipes

Particulars of Scuppers and Sanitary Discharge Pipes

Bathrooms & pantry  
-discharge to sea  
out above upper deck  
without storm valves.

One cast iron storm valve from H.C. (cuvos) - discharge in  
forecastle side house to sea out above upper deck on port side.  
One cast iron storm valve from Officers H.C. discharge in bridge  
deck out - above upper deck on port side.  
One cast iron storm valve from Captain's accommodation  
in poop led out above after peak tank top on starboard side.

## Particulars of Side Scuttles :

No scuttles below fruitboard deck.  
 Side scuttles to crew spaces in poop, bridge & forecabin  
 provided with hinged deadlights.  
 -all scuttles of substantial construction.

### Particulars of Guard Rails :—



Guard rails on forecabin + poop 3' 3" high with two rods + stanchions spaced about 4' 9" apart. Steel bulwark on bridge 3' 6" high, 24" thick, built up 17" x 35" spaced about 5' 0" apart, + fitted with one piece plank each side 20" x 13" + 7" above deck edge + lined plank.

Particulars of Gangways, Lifelines, etc. :—

Life-line for the protection of the crew has been provided in the forward well.

~~NONE~~

### Particulars of Freeing Arrangements.

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 (Round Tumble Deck)	82' 25"	3' 50"	2.75 x 1.50 	5 <del>4</del>	18.20 <sup>sq</sup> <del>14.56</del>	16.25 <sup>sq</sup>
Forward Well ... ..	80' 29"	4' 00"	3.0 x 1.71 	4	20.52	16.2 <sup>sq</sup>

State position of each freeing port *See 5 Relief* } After Well:— *10½" above*  
(F. and A. position and height above deck edge) } Forward Well:— *12½" above*

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.

After Mill: Filled with 2 pound bars fore & aft.  
Forward Mill: 3 forward ports filled with tinned feathers  
& one port at after end of well filled with  
2 pound bars fore & aft.

## 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 ... ..	<i>Tactical plating.</i>	.34'	L 6½ x 3 x .36' V.R. 9.0K at ½ height	30"	<i>none</i>	<i>none</i>	✓	✓
Raised Quarter Deck Bulkhead	<i>None</i>	.38 + .34	[7 x 3 x .40] / [6 x 3½ x .35]	36' 6" 30"	<i>Brackets at top, extension on bulk- heads.</i>	<i>none</i>	✓	✓
Bridge, After Bulkhead ... ..								
Bridge, Forward Bulkhead ... ..	24 x 38'	.34'	[7 x 3 x .52] Hatched bulk.	30"	<i>Brackets at top, also at bottom edge of hatch.</i>	<i>none</i>	✓	✓
Forecastle Bulkhead ... ..	<i>none</i>	.24'	3½ x 3 x .30'	30"	<i>Joistless</i>	4' 6" x 2' 0"	18"	✓
Trunk, Aft ... ..	✓	✓	✓	✓	✓	✓	✓	✓
Trunk, Forward ... ..	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Super- structure Decks ... ..	18" x 34'	.30'	E.R. 3½ x 3 x .40 B.R. 3 x 3 x .34'	E.R. 4½" B.R. 36"	<i>Brackets at top, to B.R. &amp; stiffeners carried below.</i>	4' 6" x 2' 0"	21"	7'-0"
Machinery Casings within Superstruc- tures 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).

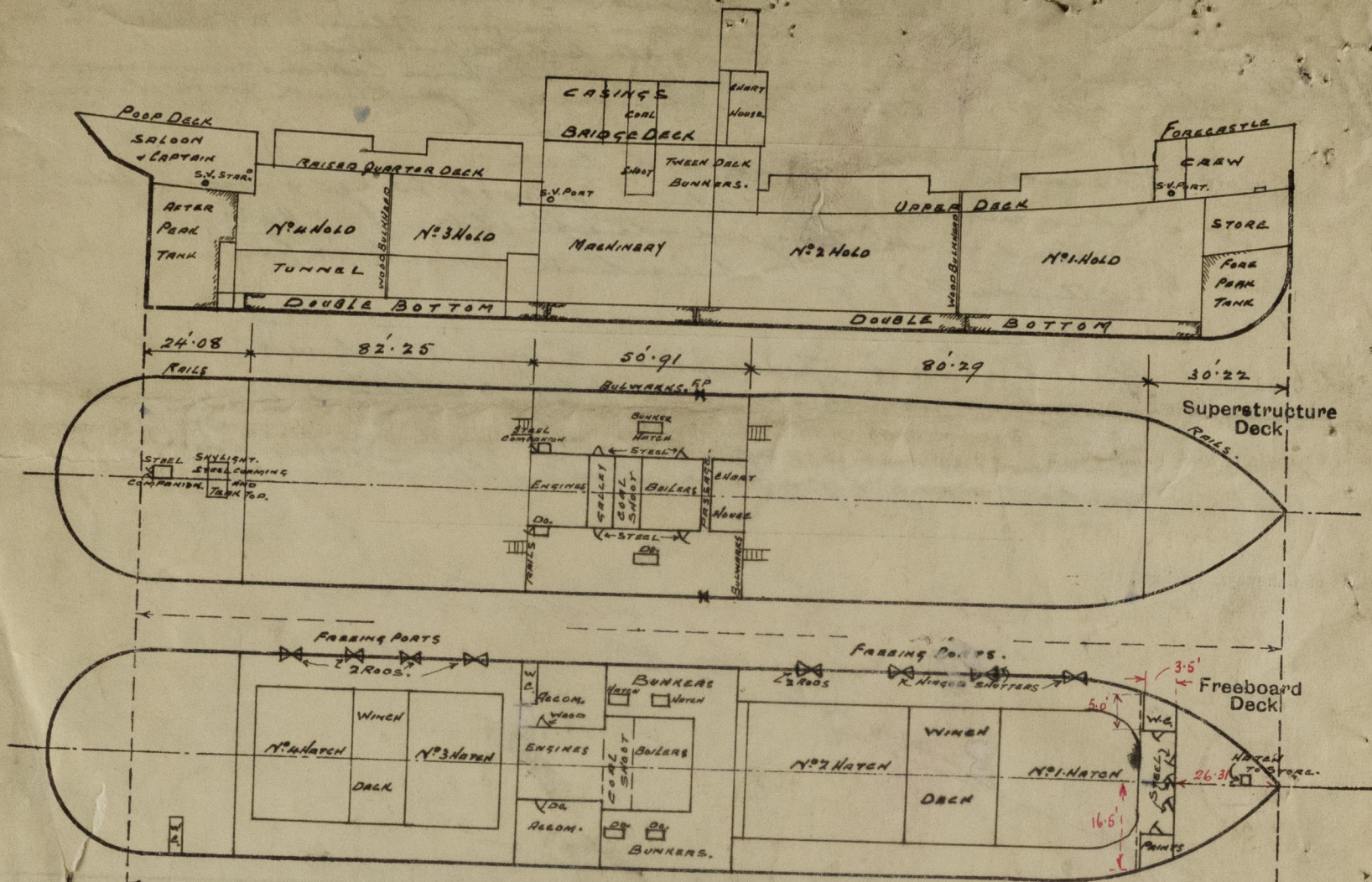
Poop Bulkhead ... ..	None opening
Raised Quarter Deck Bulkhead ...	None openings
Bridge, After Bulkhead ... ..	None openings
Bridge, Forward Bulkhead ... ..	
Forecastle Bulkhead ... ..	None openings
Exposed Machinery Casings on Deck	Three steel hinged doors manipulated from both sides.
Board or Raised Quarter Decks ...	✓
Exposed Machinery Casings on Superstructure Decks ... ..	Two steel hinged doors each side manipulated from both sides.
Machinery Casings within Superstructure not fitted with Class I Closing Appliances ... ..	✓
Deckhouses on Flush Deck Ships ...	✓

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Whitwood.

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:-



The sheer of the raised quarter deck - are the same as those of the upper deck.

$$\text{Forecastle} = 26.31 + \frac{5.5 \times 5.0}{16.5} = 27.37' \quad \text{Overhang} = 30.22 - 27.37 = 2.85'$$

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

External Displacement & Tons per inch.

Draft.	Displacement.	Tons per inch.
17.0	3800	20.65
18.0	4048	20.75
19.0	4397	20.85

The vessel has been examined - afloat.

Decks, Casings, Latches, Hatchways, Ventilators & coverings, air pipes, Bulwarks, & general equipment examined.

The holds have been generally examined & found satisfactory.

Builder's name and yard number J. Brown & Sons Ltd. No. 165

Names of sister ships ✓

Owners H. France, Fenwick & Co. Ltd.

Fee £ 9 : 7

Received by me



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