

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

 having RAISED QUARTERDECK BRIDGE
& FORECASTLE

(Type of Superstructures.)

Port of Survey LIVERPOOLDate of Survey JANUARY 1933
 Ship's Name S.S. SPRAYVILLE Nationality and Port of Official Number BRITISH LIVERPOOL 143692 Gross Tonnage 466 Date of Build 1920-11
Name of Surveyor J. SteelmanMoulded Dimensions: Length 152' Breadth 25'-0" Depth 12'-0"Moulded displacement at moulded draught = 85 per cent. of moulded depth 803 tonsCoefficient of fineness for use with Tables .725Particulars of Classification * 100 A1S.S. dw. No. 2-30

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>12'-0"</u>	(a) Where D is greater than Table depth (D-Table depth) R = <u>(12.03-10.13) 1.169 = 2.22'</u>	Moulded Breadth (B) <u>25'-0"</u>
Stringer plate <u>.03</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>6.0</u>
Sheathing on exposed deck $T \left(\frac{B-S}{L} \right) =$		Ship's Round of Beam = <u>6.2</u>
Depth for Freeboard (D) = <u>12.03</u>	If restricted by superstructures	Difference = <u>.5</u>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.5}{4} \left(1 - \frac{.2235}{25} \right) = .1235$

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>86'-0"</u>	<u>86.00</u>	<u>3'-6"</u>		<u>86.00</u>
" overhang	✓				
Bridge enclosed	<u>9'-0"</u>	<u>9.00</u>	<u>7'-0"</u>		<u>9.00</u>
" overhang aft	✓				
" overhang forward	✓				
W'cle enclosed	<u>21'-08"</u>	<u>21.08</u>	<u>7'-0"</u>		<u>21.08</u>
" overhang	<u>2'-93"</u>	<u>1.96</u>			<u>1.96</u>
Trunk aft	✓				
" forward	✓				
Tonnage opening aft	✓				
" forward	✓				
Total	<u>120.00</u>	<u>118.04</u>			<u>118.04</u>

Standard Height of Superstructure 6.00
 " " R.Q.D. 3.346
 Deduction for complete superstructure 21.20
 Percentage covered $\frac{S}{L} = 78.94$
 " " $\frac{S_1}{L} = 77.65$
 " " $\frac{E}{L} = 77.65$
 Percentage from Table, Line A. 72.41
 (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 = 15.35

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	<u>25.20</u>	1	<u>25.20</u>	<u>+1.85</u>	<u>26.85</u>	1	<u>26.85</u>
1/4 L from A.P.	<u>11.21</u>	4	<u>44.84</u>	<u>10.86</u>	<u>11.95</u>	4	<u>47.80</u>
1/2 L "	<u>2.77</u>	2	<u>5.54</u>	<u>2.71</u>	<u>2.95</u>	2	<u>5.90</u>
Amidships	✓	4	✓	✓	✓	4	✓
3/4 L from F.P.	<u>5.54</u>	2	<u>11.08</u>	<u>6.06</u>	<u>6.06</u>	2	<u>12.12</u>
1/4 L "	<u>22.43</u>	4	<u>89.72</u>	<u>24.29</u>	<u>24.29</u>	4	<u>97.16</u>
F.P.	<u>50.40</u>	1	<u>50.40</u>	<u>55.00</u>	<u>55.00</u>	1	<u>55.00</u>
Total			<u>226.78</u>				<u>244.83</u>

 Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{18.05}{18} \left(\frac{75-39.47}{2} \right) = .36$

If limited on account of midship superstructure.

 Mean actual sheer aft = Excess.
 Mean standard sheer aft = Excess.

 Mean actual sheer forward = Excess.
 Mean standard sheer forward = Excess.
Length of enclosed superstructure forward of amidships = .125" " aft of " = .50
 actual sheer aft R.A.D. 42
 Standard " 40.15
1.85

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 15.53Summer freeboard = 3.73Moulded draught (d) = 11.80

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 2.95 = 3"

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 953

Tons per inch immersion at summer load water line

 $T =$ 7.67Deduction = $\frac{\Delta}{40T}$ inches $=$ 3.11 = 3"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

 $\frac{725+68-1405}{1.36-1.36} =$ 15.78 $\frac{725+68-1405}{1.36-1.36} =$ 16.30Depth Correction 2.22Deduction for superstructures 15.35Sheer correction36Round of Beam correction03

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. ... R.Q.D. 42.00Summer Freeboard = 44.78

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

 Tropical Fresh Water Line above Centre of Disc 3 3/4
 Fresh Water Line " " 3
 Tropical Line " " 3 1/4
 Winter Line below " " 3
 Winter North Atlantic Line " " 5

 Tropical Fresh Water Freeboard 3-5
 Fresh Water " " 3-5 3/4
 Tropical " " 3-9
 Winter " " 3-11 3/4
 Winter North Atlantic " " 4-1 3/4

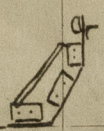
10 JAN 1933

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 26 NOV 1933
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 24 MAR 1934
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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway			N° 1.	N° 2.					
Dimensions of Hatchway			28'-7" x 12'-11"	23'-2" x 13'-0"					
COAMINGS	{	Height above Deck ...	36"	36"	 <p>Hatch coaming in two planes.</p>				
		Thickness { Sides5"	.5"					
		Ends5"	.5"					
		Stiffeners ...	NONE	NONE					
Brackets, Stays ...			Five 10" x 5 B.P.	Four 10" x 5 B.P.					
HATCH BEAMS	{	Number ...	5	4					
		Spacing ...	4'-9"	4'-8"					
		Scantling and Sketch ...	7" 16" x .35.	as N°1					
			10 3 1/2 x 3 x .45 L.						
Bearing Surface ...			3"						
FORE AND AFTERS	{	Number ...							
		Spacing ...							
		Unsupported Lengths ...							
		Scantling* and Sketch ...	NONE.						
Bearing Surface ...									
HATCH COVERS	{	Material ...	W.P.	W.P.					
		Thickness ...	2 1/2"	2 1/2"					
		How fitted ...	F.A.	F.A.					
		Bearing Surface ...	3"	3"					
Spacing of Cleats ...			24"	24"					
Number of Tarpaulins ...			3.	3.					
<p>*Are wood fore and afters steel shod at all bearing surfaces? None.</p> <p>Are battens and wedges efficient and in good condition? Yes.</p> <p>Are tarpaulins in good condition and in accordance with rule requirements? Yes.</p> <p>Are lashings provided in accordance with rule requirements? Yes.</p>									

Particulars of fiddley, funnel and ventilator coamings:—

Smokehold gratings covered with efficient hinged steel plates.
Funnel & Vent Coamings - Eng. run. skylight in good condition.

Particulars of Flush Bunker Scuttles:—

NONE

Particulars of Companionways:—

NONE.

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

1st 3'-0" high 5 1/2" Dia 3/8" thick 1/6 Frd Accan. Situated in F'sle head. ~~No plugs or covers.~~
1st 2'-10" 9" 3/8" 1/6 Hold. " " " Plugs & covers supplied
1st 3'-0" 9" 3/8" 1/6 Hold. " " " as R.Q.D. " " "

Efficient closing appliances provided

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

1^c 12" high 2 1/2" Dia 1/6 F.P.
1^c 30" 2 1/2" 1/6 A.P.

Efficient closing appliances provided

Particulars of Gangway Cargo and Coaling Ports:—

NONE.



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Grayville

Particulars of Scuppers and Sanitary Discharge Pipes:—

5" x 3" Scupper cut in gunwale to one 2½" pipe discharging about 12" below R.Q.D.
Fore Sanitary pipe discharges above main deck.
Sanitary pipe aft. discharges 1'-10" below R.Q.D. & is fitted with storm valve.

Particulars of Side Scuttles:—

Side scuttles in Forecastle 9' dia with efficient deadlights.

Particulars of Guard Rails:—

on Fore Head 3'-3" high. 4'-9" between stanchions. 2 rods.

Particulars of Gangways, Lifelines, etc.:—

4 stanchions fitted in sockets on Star. Side No 1 hatch to 3'-0" above coaming.
~~No eye bolts at either end.~~
Lifelines and ring bolts are available for use in any part of the ship which might have to be used by the crew in the regular working of the ship.

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 R.Q.D. ...	86'-0" ✓	2'-9"	3'-0" x 1'-4" 3 2'-0" x 1'-4" 3 2'-0" x 1'-4" 3	3.6	20 7 sq ft.	17.2 18 sq ft.
Forward Well ...	32'-0" ✓	3'-0"	36" x 20"	2.	10 sq ft. ✓	10 sq ft. ✓
State position of each freeing port ... } After Well R.Q.D. Baye Bld. 1-2'-0" — 20'-10" — 21'-4" — Fore 29' above } (F. and A. position and height above deck edge) } Forward Well: — AP. — 13'-0" — 21" — Baye Bld. } deck State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Fitted with shutters (Part. app. in fwd. well has Two bars).						
Additional area where sheer is less than standard.						

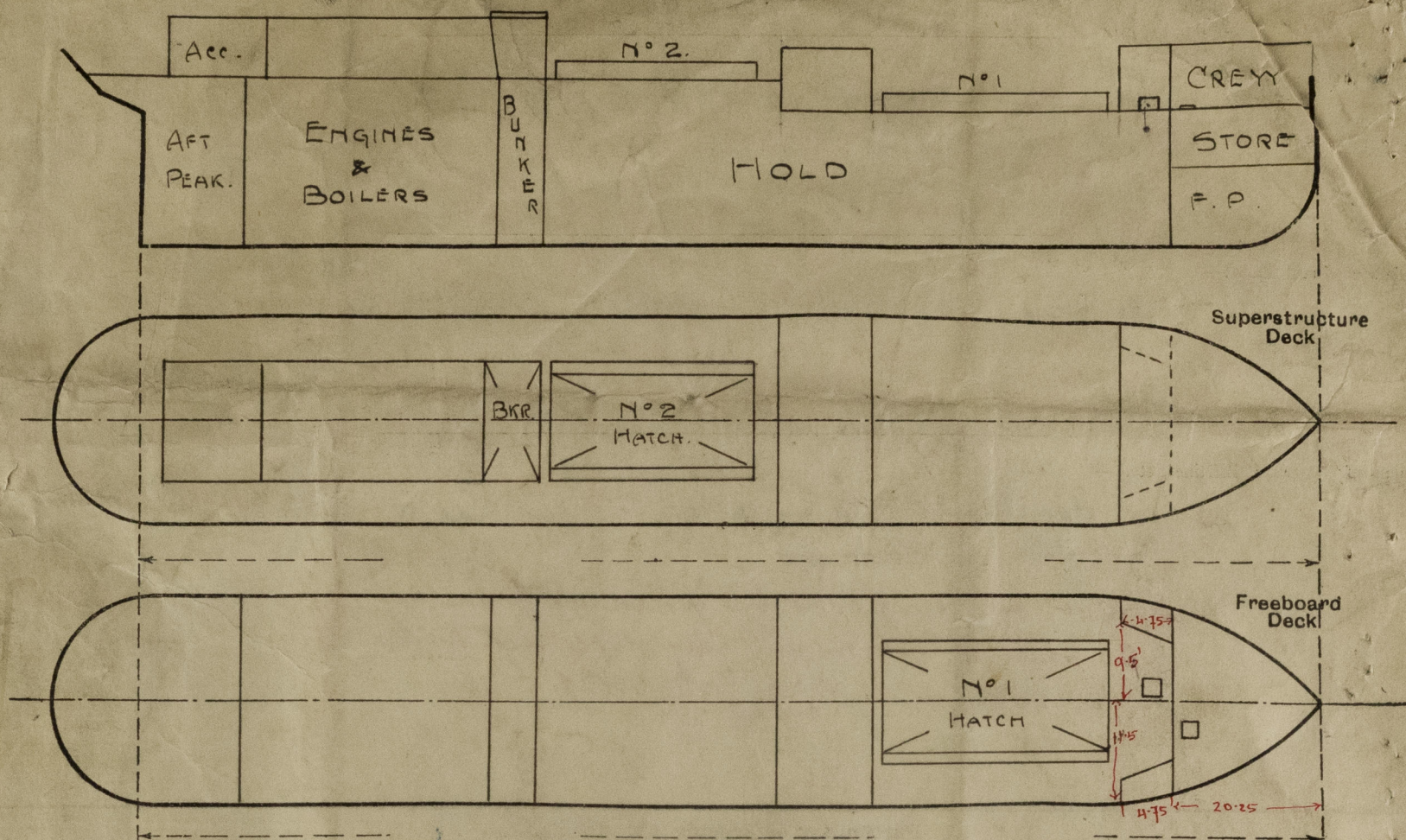
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ...	✓					None.	✓	3'-6"
Raised Quarter Deck Bulkhead ...	Wood	sheathed.						
Bridge, After Bulkhead ...	U	3. ✓	Wood sheathed.	30"	Bkts. Top plates	5'-3" x 1'-8"	18' —	3'-6"
Bridge, Forward Bulkhead ...	38. ✓	25. ✓	do.	24"	do.	None.	✓	7'-0"
Forecastle Bulkhead ...	38. ✓	25. ✓	2½ x 2½ x 3.	30"	None	4'-8" x 1'-8"	20" —	7'-0"
Trunk, Aft ...	✓							
Trunk, Forward ...	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	38. ✓	25. ✓	3" x 3" x 3.	32"	12" x 12" Bkts at top.	3'-10" x 1'-10"	20".	6'-7"
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 ...	— <i>no openings</i>
Bridge, After Bulkhead ...	Wood doors strongly constructed opened both sides. ✓
Bridge, Forward Bulkhead ...	— <i>no openings</i>
Forecastle Bulkhead ...	Wood doors strongly constructed opened both sides. ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Steel doors opened both sides. ✓
Exposed Machinery Casings on Super-structure 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 shown on the following sketches:—



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

To Fore Peak Space. $2\frac{1}{2}'' \times 24''$ 2" angle coaming. $1\frac{1}{2}''$ wood cover. $2\frac{1}{2}''$ rests. Situated within Frd. accommodation.

Boorby to Hold. Frd of No. 1 Hatch. $26'' \times 26''$. 2'-0" coaming. 3 T. $2\frac{1}{2}''$ wood cover $1\frac{1}{2}''$ rests. 2 tarpaulins 15" between cleats. bottom wedges good.

Vessel measured afloat for Freeboard only.

Builder's name and yard number COCHRANE & SONS. LD. (SELBY) No. 745.

Names of sister ships

Owners JOHN S. MONKS.

Fee £ 5 : 2 : -

Received by me

Expenses £ 6 6.