

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index No. 29294
(For London Office only.)

3 DEC 1935

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~

Leaving Raised quarter deck, bridge & fore-castle

(Type of Superstructures.)

Ship's Name SOJOURNER Nationality and Port of Registry British North Newcastle Official Number 145504 Gross Tonnage 435 Date of Build 1920-6

Moulded Dimensions: Length 142 Breadth 25'-0" Depth 12'-7" to upper deck

Moulded displacement at moulded draught = 85 per cent. of moulded depth 754 764 tons

Coefficient of fineness for use with Tables 1.705

Port of Survey Newcastle-on-Tyne

Date of Survey 29th Nov 1935

Name of Surveyor A. H. Bowden

Particulars of Classification +100 A1

Depth for Freeboard (D) 12.61

Moulded depth ... 12.7

Stringer plate03

Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓

Depth for Freeboard (D) = 12.61

Depth correction

(a) Where D is greater than Table depth $(D - \text{Table depth}) R = (12.61 - 9.47) = 3.14$
 $= + 3.43"$

(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) 25.0 ft

Standard Round of Beam = $\frac{B \times 12}{50} = 6.00"$

Ship's Round of Beam = 6 1/2"

Difference Excess .50"

Restricted to

Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.50}{4} \times .2305 = -.03"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...						Standard Height of Superstructure <u>6.00'</u>
" overhang ...						" " R.Q.D. <u>3.28'</u>
R.Q.D. enclosed ...	<u>78.75 ft</u>	<u>78.75</u>	<u>4'-0"</u>	<u>✓</u>	<u>78.75</u>	Deduction for complete superstructure <u>20.20'</u>
" overhang ...						Percentage covered $\frac{S}{L} = 77.70\%$
Bridge enclosed ...	<u>8.83 ft</u>	<u>8.83</u>	<u>7'-0"</u>	<u>✓</u>	<u>8.83</u>	" " $\frac{S_1}{L} = 76.95\%$
" overhang aft ...						" " $\frac{E}{L} = 76.95\%$
" overhang forward ...	<u>20.62</u>					Percentage from Table, Line A. <u>71.55%</u>
Fore enclosed <u>OVER SIDE HATCHES</u> <u>22.45 ft</u>	<u>22.45</u>	<u>20.62</u>	<u>7'-0"</u>	<u>✓</u>	<u>20.62</u>	(corrected for absence of forecastle (if required))
" overhang ...	<u>2.13</u>	<u>1.06</u>			<u>1.06</u>	Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...						Deduction = $20.20 \times .7155 = -14.45"$
" " forward ...						
Total ...	<u>110.33</u>	<u>109.26</u>			<u>109.26</u>	

SHEER CORRECTION.

Actual H₀ of R.Q.D. = 4.00

Standard " = 3.28

Diff = .72

Excess (Shear aft increased by virtue of excess R.Q.D. H₀) = 8.64"

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>24.20</u>	1		<u>24.20</u>	<u>17 1/2"</u>	<u>26.14</u>	1		<u>24.20</u>
1/2 L from A.P. ...	<u>10.77</u>	4		<u>43.08</u>	<u>6 3/4"</u>	<u>11.63</u>	4		<u>43.08</u>
3/4 L " ...	<u>2.66</u>	2		<u>5.32</u>	<u>1 3/4"</u>	<u>2.875</u>	2		<u>5.32</u>
Amidships ...	<u>✓</u>	4		<u>✓</u>	<u>Nil</u>	<u>✓</u>	4		<u>✓</u>
3/4 L from F.P. ...	<u>5.32</u>	2		<u>10.64</u>	<u>4 1/2"</u>	<u>4.50</u>	2		<u>9.00</u>
1/2 L " ...	<u>21.54</u>	4		<u>86.16</u>	<u>18 1/2"</u>	<u>18.50</u>	4		<u>74.00</u>
F.P. ...	<u>48.40</u>	1		<u>48.40</u>	<u>39"</u>	<u>39.00</u>	1		<u>39.00</u>
Total ...				<u>217.80</u>					<u>194.60</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{23.20}{18} \left(\frac{75 - 38.85}{2} \right) = +.47"$

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 = 16.61

Summer freeboard = 4.42

Moulded draught (d) = 12.26

Deduction for Tropical freeboard and addition for Winter freeboard = 3.06

Addition for Winter North Atlantic Freeboard (if required) = 5

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta =$ 893

Tons per inch immersion at summer load water line $T =$ 6.85

Deduction = $\frac{\Delta}{40T}$ inches = 3.26 = 3 1/4"

TABULAR FREEBOARD corrected for Flash Deck (if required)

Correction for coefficient $\frac{705 - 68}{1.36} = \frac{137}{1.36} = 138.5$

	+	-
Depth Correction ...	<u>3.43</u>	
Deduction for superstructures ...		<u>14.45</u>
Sheer correction ...	<u>.47</u>	
Round of Beam correction ...		<u>.03</u>
Correction for Thickness of Deck amidships		
Other corrections, soundings, etc. ...	<u>48.00</u>	

51.90 52.90 14.48 + 38.42 37.42

Summer Freeboard = 53.04

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

Tropical Fresh Water Line above Centre of Disc ...	<u>6 1/4"</u>	Tropical Fresh Water Freeboard ...	<u>4</u>
Fresh Water Line " " ...	<u>3 1/4"</u>	Fresh Water " " ...	<u>3</u>
Tropical Line " " ...	<u>3</u>	Tropical " " ...	<u>4</u>
Winter Line below " " ...	<u>3</u>	Winter " " ...	<u>4</u>
Winter North Atlantic Line " " ...	<u>5</u>	Winter North Atlantic " " ...	<u>4</u>

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
		UPPER DECK		R.Q.D	UPPER DECK	FIDLEY TOP			
Description of Hatchway	...	No 1 CARGO	No 2 CARGO	FORE PEAK & HOLD ESCAPE	COAL				
Dimensions of Hatchway	...	23-6 14-0	21-0 14-0	3-6 2-1	5-3 13-6				
COAMINGS	Height above Deck	42"	36"	24"	9"				
	Thickness	.44	.44	.28	.36				
	Stiffeners	7" BA	7" BA	✓	✓				
	Brackets, Stays	2	2	✓	✓				
HATCH BEAMS	Number	4	4	1					
	Spacing	4'-9"	4'-2"						
	Scantling and Sketch	Plate 12" x 6" x .32 Angles @ 3x3x.42	Plate 12" x 6" x .32 Angles @ 3x3x.42	COLLISION BKG FORMING WEB IN HATCH	None				
	Bearing Surface	3"	3"						
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch	None	None	✓	None				
HATCH COVERS	Material	WP	WP	WP	WP				
	Thickness	2 1/2"	2 1/2"	2 1/2"	2 1/2"				
	How fitted	F+A	F+A	T	F+A				
	Bearing Surface	3"	3"	1 1/2"	2"				
Spacing of Cleats	...	23"	26"	NONE FORE AND AFTERS	42"	Intermediate cleats fitted.			
Number of Tarpaulins	...	2 X	2 X	2 X	1				
*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?									
RINGS ON DECK + TAYLOR PALISTER LASHING BARS.									

Particulars of fiddle, funnel and ventilator coamings:—

Loose covers fitted to fiddle grating openings permanently attached.
 Funnel and ventilator coaming in good order.
 Skylight (ER) of steel strongly constructed. Some glasses missing.

Particulars of Flush Bunker Scuttles:—

One port and one on starboard side with bayonet joints
 15" diam.

Particulars of Companionways:—

Entrance to bridge house cabin at after end of bridge house
 with ordinary hinged wood door 1 1/2" opening 5'-3" x 1'-10". Sill 10"

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

Forecastle deck One off 9" diam x 30" ht x .28" to forecastle
 Two off mushroom type 6" diam x 8" ht (to make workable)
 Two funnel coamings 4" diam x 7" height
 Upper deck One off 9" diam ht 36" coaming .30
 Bridge deck Two off (1/15) mushroom vents 7" diam 7" high

RQ Deck One off 9" diam coaming 36"

Covers for vent coaming
 not produced
 provided

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

Forecastle deck One off 2 1/2" diam height to mouth 2"
 RQ deck One off 2" " height 5'-0" supported,

Covers for air pipes
 not produced.
 provided.

Particulars of Gangway Cargo and Coaling Ports:—

None



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Sojourner

The Port of Registry has been changed from Newcastle
to Methil. (Supplement R.B. 24/2/36)

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Particulars of Scuppers and Sanitary Discharge Pipes:—

No scupper pipes fitted.
The two sanitary discharge pipes one in fore one in RQD are led overboard above foreboard deck & are fitted with NR valves.

Particulars of Side Scuttles:—

Side scuttles in fore-castle are fitted with deadlights (~~glasses to renew~~)
Scuttles in bridge front & bridge end no deadlights fitted.

Particulars of Guard Rails:—

Fore-castle deck 2'-10" high stanchions spaced 4'-9" apart 2 rods
Well (upper deck) 4'-1" " bulwarks; stays " 4'-9" "
Bridge deck 3'-10" " bulwarks " " 8'-10" "
Raised Quarter deck 3'-3" " bulwarks " " 4'-9" "

Particulars of Gangways, Lifelines, etc.:—

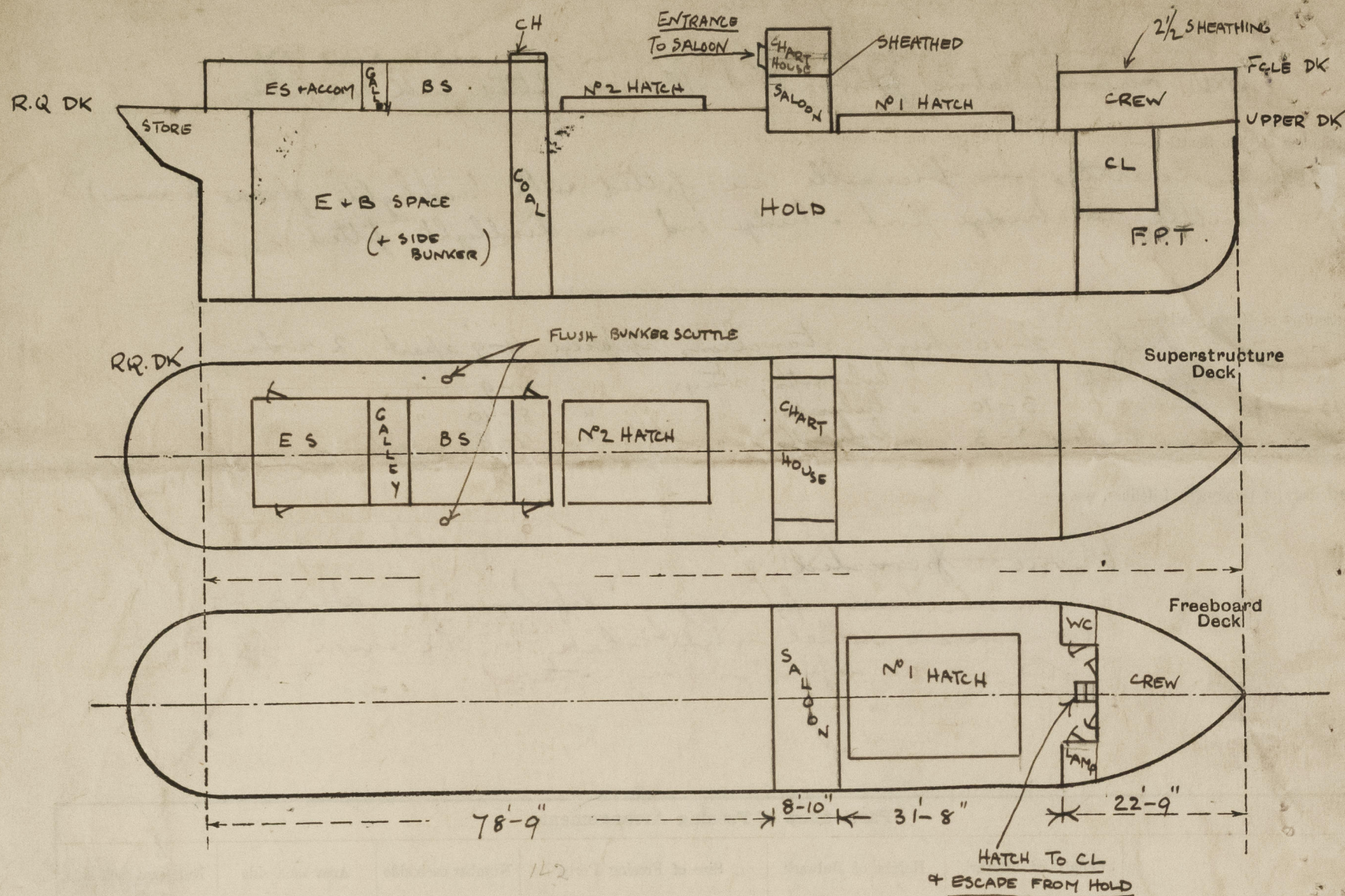
~~None provided~~
Provision made for rigging lifelines in all parts of the vessel which might have to be used by the crew in the regular working thereof.

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. ...	78-9	3-3	30" x 18"	4 off	15.00	15.75
Forward Well ...	31-8"	4'-1"	30" x 18"	3 off	11.25	9.67
State position of each freeing port ... { After Well:— from bridge end ① 12-9" ② 36-0" ③ 47-0" ④ 64-0" sill 3 1/2" (F. and A. position and height above deck edge) { Forward Well:— " " front ① 3-3" ② 14-10" ③ 26-3" 4' above dk 12"						
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Shutters (to repair)						
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 ...	None	.28	NOT ACCESSIBLE	2'-6"	✓	None	✓	4'-0"
Bridge, After Bulkhead ...	None	.28	NOT ACCESSIBLE	2'-6"	✓	None	✓	7'-0"
Bridge, Forward Bulkhead ...	.36	.30	NOT ACCESSIBLE	2-6	BKTS T & B	None	✓	7'-0"
Fore-castle Bulkhead ...	.28	.28	NOT ACCESSIBLE	2'-6"	None	5-0 x 1-10	18"	7'-0"
Trunk, Aft ...	✓	✓	✓	✓	✓	✓	✓	✓
Trunk, Forward ...	✓		✓		✓		✓	
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	.30	.26	2 1/2 x 2 1/2 x 30	2'-6"	BKTS TOP	4'-1" x 2'-0"	19"	6'-6"
Exposed Machinery Casings on Super-structure Decks ...	✓							
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	✓							
Deckhouses on Flush Deck Ships ...	✓							

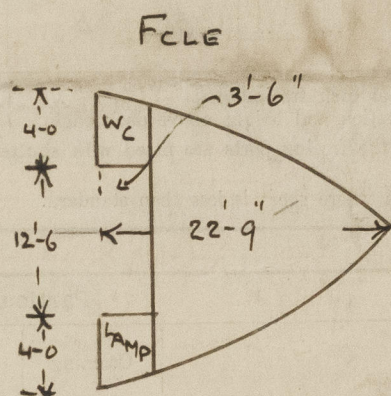
Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead ...	✓
Raised Quarter Deck Bulkhead ...	Intact
Bridge, After Bulkhead ...	Intact (except for port-holes)
Bridge, Forward Bulkhead ...	Intact (do)
Fore-castle Bulkhead ...	Ordinary hinged wood doors (1 1/2") operated both sides
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Ordinary hinged steel door operated 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 shewn on the following sketches:—



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

Vessel examined on shipway
and the Special Survey N° 3.
is now in hand and will complete
7th Dec '35 approx.



Fore Castle.	22.75'
Recess 12.50' x 13.50'	2.13'
20.50'	20.62' Equiv.

Builder's name and yard number *Campbell & Nicolson Ltd* N° 285.

Names of sister ships *Standard vessel Type C1*

Owners *Clelland's (Successors) Ltd (ex T Stm Coaster Ltd)*

Fee £ *6-0-0*

Received by me



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