

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index No. **21576**
(For London Office only.)

-5 JUL 1932

21516

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Raised Q. Deck Bridge & Forecastle
NN YENHILL NN HOLDERNORE
(Type of Superstructures) CLASCOH Hull

Ship's Name "RUDMORE" Nationality and Port of Registry British Official Number 132058 Gross Tonnage 969 Date of Build 1911-3

Moulded Dimensions: Length 207.5' Breadth 33.75' Depth 14.92'
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1925 tons
Coefficient of fineness for use with Tables 758

Port of Survey Newcastle
Date of Survey 4th July 1932
Name of Surveyor P. H. Broadacre
Particulars of Classification +100 A1
SS No. 3-5, nt
SS No. 1-29

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>14.92'</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(14.92 - 13.835) x 1.596 = +1.81</u> <u>1.135</u>	Moulded Breadth (B) <u>33.75</u> Standard Round of Beam = $\frac{B \times 12}{50} = \frac{8.10}{50} = 8.10$ Ship's Round of Beam = <u>8.4</u>
Stringer plate <u>.05</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Difference <u>Excess .15</u>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Restricted to
Depth for Freeboard (D) = <u>14.97</u>		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.15}{4} \left(1 - \frac{.6187}{33.75} \right) = \frac{.15}{4} \times .9813 = .0364$

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>3.716</u>
R.Q.D. enclosed	<u>97.50</u>	<u>97.50</u>	<u>3.834"</u>		<u>97.50</u>	Deduction for complete superstructure <u>26.75</u>
" overhang	✓					Percentage covered $\frac{S}{L} = \frac{62.17}{61.87} = 62.17\%$
Bridge enclosed	<u>9.6</u>	<u>9.50</u>	<u>7.3"</u>		<u>9.50</u>	" " $\frac{S_1}{L} = \frac{61.87}{61.87} = 61.87\%$
" overhang aft	✓		<u>+ 2.25</u>			" " $\frac{E}{L} = \frac{61.87}{61.87} = 61.87\%$
" overhang forward	✓					Percentage from Table, Line A. <u>49.18</u>
Forecastle enclosed	<u>22.0</u>	<u>21.37</u>	<u>7.3"</u>		<u>21.37</u>	(corrected for absence of forecastle (if required))
" overhang	✓		<u>+ 3.0</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 = <u>26.75 x .4918 = -13.16</u>
" forward	✓					
Total	<u>129.00</u>	<u>128.37</u>			<u>128.37</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P.	<u>30.75</u>	1		<u>30.75</u>	<u>27.00</u>	<u>27.00</u>	1		<u>27.00</u>	Mean actual sheer aft = <u>deficient > 7.5%</u>
$\frac{1}{2}$ L from A.P.	<u>13.68</u>	4		<u>54.72</u>	<u>12.25</u>	<u>12.24</u>	4		<u>48.96</u>	Mean actual sheer forward = <u>deficient</u>
$\frac{2}{3}$ L "	<u>3.38</u>	2		<u>6.76</u>	<u>3.00</u>	<u>3.06</u>	2		<u>6.12</u>	Mean standard sheer aft
Amidships	0	4					4			Mean standard sheer forward
$\frac{2}{3}$ L from F.P.	<u>6.77</u>	2		<u>13.54</u>	<u>6.75</u>	<u>6.81</u>	2		<u>13.62</u>	Length of enclosed superstructure forward of amidships = <u>.016</u>
$\frac{1}{2}$ L "	<u>27.37</u>	4		<u>109.48</u>	<u>27.25</u>	<u>27.25</u>	4		<u>109.00</u>	" " aft of " = <u>50%</u>
F.P.	<u>61.50</u>	1		<u>61.50</u>	<u>60.00</u>	<u>60.00</u>	1		<u>60.00</u>	
Total				<u>276.75</u>					<u>264.70</u>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{12.05}{18} \left(.75 - \frac{.3108}{2} \right) = (+) .29$

If limited on account of midship superstructure.

Sheer deficientIf limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient
Depth to Freeboard Deck = <u>14.97</u>	$\Delta = \frac{2112}{18} = 117.33$	$\frac{.758 + .68}{1.36} = \frac{1.438}{1.36}$
Summer freeboard = <u>1.23</u>	Tons per inch immersion at summer load water line	Depth Correction <u>1.81</u>
Moulded draught (d) = <u>13.74</u>	T = <u>13.92</u>	Deduction for superstructures <u>13.16</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>3.43 = 3\frac{1}{2}</u>	Deduction = $\frac{\Delta}{40T}$ inches = <u>3.79 = 3\frac{3}{4}</u>	Sheer correction <u>.29</u>
Addition for Winter North Atlantic Freeboard (if required) = <u>2"</u>		Round of Beam correction <u>.01</u>
		Correction for Thickness of Deck amidships <u>-</u>
		Other corrections, scantlings, etc. <u>-</u>
		Summer Freeboard = <u>14.70</u>

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

Tropical Fresh Water Line above Centre of Disc	<u>7\frac{1}{4}"</u>
Fresh Water Line " "	<u>3\frac{3}{4}"</u>
Tropical Line " "	<u>3\frac{1}{2}"</u>
Winter Line below " "	<u>3\frac{1}{2}"</u>
Winter North Atlantic Line " "	<u>5\frac{1}{2}"</u>

Tropical Fresh Water Freeboard	<u>0' - 2\frac{3}{4}"</u>
Fresh Water " "	<u>0' - 11\frac{1}{2}"</u>
Tropical " "	<u>0' - 11\frac{1}{4}"</u>
Winter " "	<u>1' - 6\frac{1}{4}"</u>
Winter North Atlantic " "	<u>1' - 8\frac{1}{4}"</u>

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
← Upper Deck → ← R.Q. Dk → U.D. Casings									
Description of Hatchway	No. 1	No. 2	No. 3	Coal hatches	TO FORE PEAK & TO CHAIN LOCKER 2 OFF.	top coal hatch			
Dimensions of Hatchway	35'8" X 21'6"	34'8" X 21'11"	28'3" X 21'3"	3'5" X 2'6"	2'0" X 2'5"	7'0" X 15'2"			
COAMINGS	Height above Deck ... 49"	49"	43"	18"	3'3" X 3'0"	6'X3"X40" BA.			
	Thickness { Sides ... 50"	50"	50"	32"					
	Stiffeners ... 6'X3"X32" L. S. & FE.	40"	40"	40"					
	Brackets, Stays 8'X 40 B.P.	3.5.	3.5.	3.5.					
HATCH BEAMS	Number ... 3 WEBS. 4 BEAMS.	3 WEBS. 4 BEAMS.	3 WEBS. 4 BEAMS.						
	Spacing ... 4'5 1/2"	4'4"	3'6 1/2"						
	Scantling and Sketch								
	WEBS. 43'X 40"	43'X 40"	43'X 40"						
	Angles 4'X 3'X 40"	6'X 4'X 56"							
	BEAMS. 12'X 60"	12'X 60"	9'X 60"						
	Angles 4'X 3 1/2" X 50"	3 1/2"	3 1/2"						
	Bearing Surface								
FORE AND AFTERS	Number ...	NOTE of large number of wood hatch covers require to be renewed.							
	Spacing ...								
	Unsupported Lengths ...								
	Scantling* and Sketch								
	Bearing Surface								
HATCH COVERS	Material ...	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.		
	Thickness ...	3"	3"	3"	2 1/2"	2 1/2"	2 1/2" 13"		
	How fitted	F.A.	F.A.	F.A.	F.A.	F.A.	F.A.		
	Bearing Surface	2 1/2" X 4"	3' X 4"	3' X 4"	2 1/2"	2 1/2"	2 1/2"		
Spacing of Cleats	22"	24"	24"	20-28"	NONE	36"			
Number of Tarpaulins	Two to each hatch								

*Are wood fore and afters steel shod at all bearing surfaces? ☒ Yes

Are battens and wedges efficient and in good condition? ☒ Yes

Are tarpaulins in good condition and in accordance with rule requirements? ☒ Yes

Are lashings provided in accordance with rule requirements? ☒ Yes

Particulars of fiddle, funnel and ventilator coamings:—

Fiddle gratings are fitted with hinged steel covers.
 E.R. skylight is steel.
 Fiddle & funnel vents. good.

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:—

Bridge deck:— Entrance to access in steel house with hinged teak doors in way - operating both sides. Sill 17".
 R.Q. Deck:— Entrance to access in steel house with hinged steel door in way - operating both sides. Sill 18".

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

Fore deck:— 1 @ 6" dia to fore peak. Coaming 9'X 28".
 1 @ 12" " " " 34'X 32".
 Fore well:— 1 @ 12" " " " 36'X 36".
 1 @ 12" " " " 30'X 36".
 1 @ 12" " " " to be renewed.

The ventilators are in accordance with Rule requirements.
 Closing - wood plugs & canvas covers.

Bridge 1 G.N. 3' X 8 1/2" to mouth (No closing)

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

All air pipes are fitted with Brass Screw Plugs.

Particulars of Gangway Cargo and Coaling Ports:—

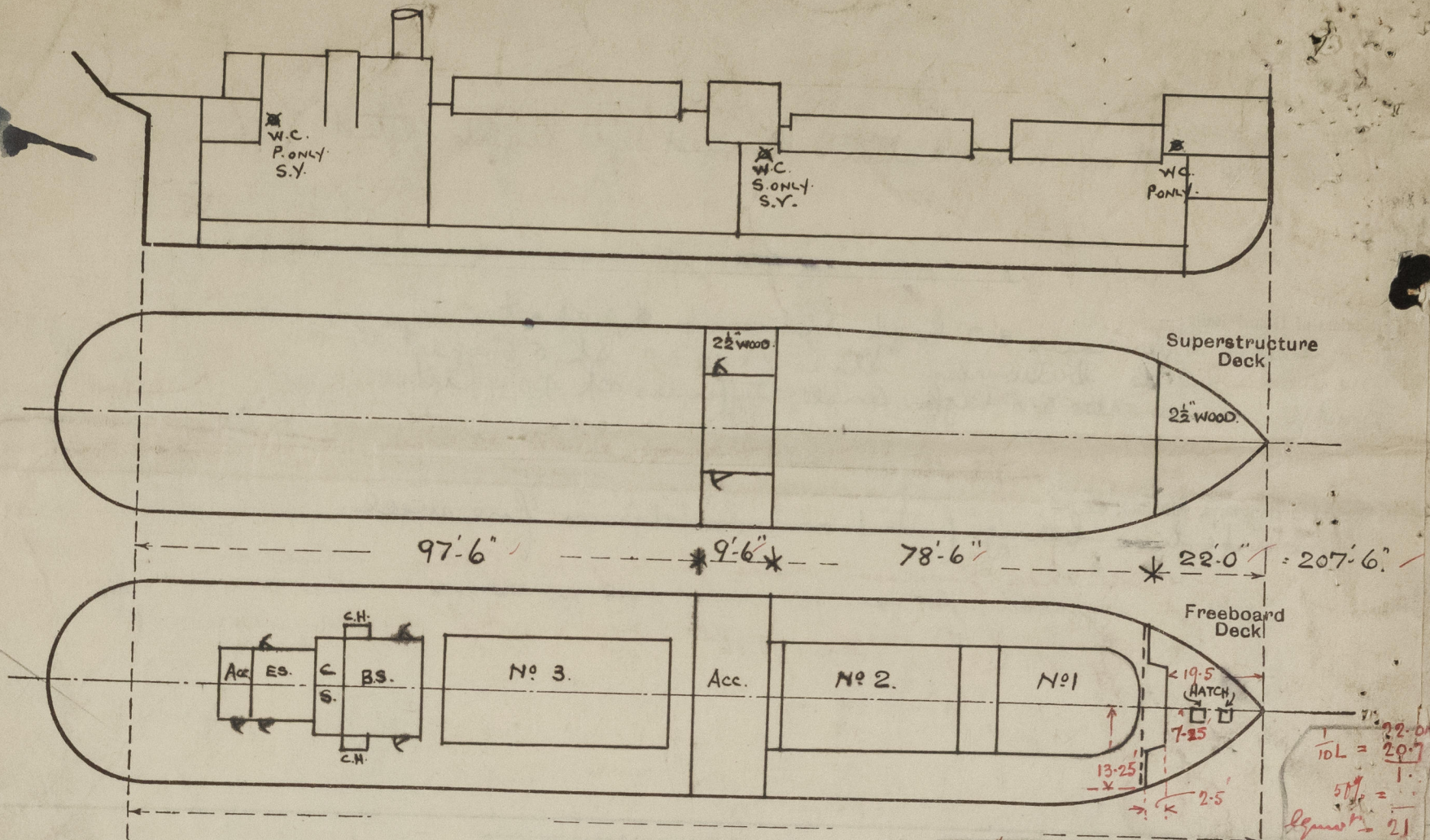
None.



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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:—



$$\begin{aligned} \text{fock.} &= 19.50 \\ + \text{2nd hull} & 6.0 \times 2.5 = 1.5 \\ \hline & 13.25 = 20.63 \end{aligned}$$

$$\begin{aligned} 21.37 \\ 20.63 \\ \hline .74 \times .989 = .73 \\ \hline 21.36 \end{aligned}$$

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

No Timber Assignment required.

Se. Lft.	Se. Displ.	T. P. I.
12'-9"	1931	13.88
13'-9"	2098	13.92
14'-9"	2266	13.96.

Vessel examined afloat.

Request form

Builder's name and yard number S. P. Austin & Son, Ltd.

Names of sister ships

Owners Westoll Steamships Ltd.

Fee £ 6 : 16 : 0 - Received by me



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