

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

7 JUN 1932

22978.

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

having Well + Round Quarter Deck.

Port of Survey NEWPORT, MON.

(Type of Superstructures.)

Date of Survey 1st June 1932

Name of Surveyor W. J. A. P. Jones

Particulars of Classification 84100A1

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"DENNIS ROSE."	British. Liverpool.	162328.	1600.	1930-11.

Moulded Dimensions: Length 250.0 Breadth 37.0 Depth 18.6

Moulded displacement at moulded draught = 85 per cent. of moulded depth 3175 tons

Coefficient of fineness for use with Tables .764

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <u>18.50</u> <u>18.6</u>	(a) Where D is greater than Table depth (D-Table depth) R = $(18.55 - 16.67) 1.923$ = $1.88 \times 1.923 = +3.63$	Moulded Breadth (B) <u>37.0</u>
Stringer plate ... <u>.05</u> <u>.625</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{37.0 \times 12}{50} = 8.88$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <u>none</u>	If restricted by superstructures	Ship's Round of Beam = <u>9</u>
Depth for Freeboard (D) = <u>18.55</u>		Difference <u>Excess</u> = <u>.12</u>
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.12}{4} (1 - .7235) = -.01$

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>140.45</u>	<u>140.45</u>	<u>4.0</u>		<u>140.45</u>
" overhang ...					
Bridge enclosed ...	<u>15.33</u>	<u>15.33</u>	<u>8.0</u>		<u>15.33</u>
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...	<u>25.00</u>	<u>25.00</u>	<u>7.0</u>		<u>25.00</u>
" overhang ...	<u>.21</u>	<u>.10</u>			<u>.10</u>
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<u>180.99</u>	<u>180.88</u>			<u>180.88</u>

Standard Height of Superstructure 6.0

" " R.Q.D. 4.0

Deduction for complete superstructure 31.0

Percentage covered $\frac{S}{L} = \frac{180.88}{250.0} = 72.40\%$

" " $\frac{S_1}{L} = \frac{180.88}{250.0} = 72.35\%$

" " $\frac{E}{L} = \frac{180.88}{250.0} = 72.35\%$

Percentage from Table, Line A. 65.89
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. 65.89
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = $31.0 \times .6589 = -20.42$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... <u>35.00</u> <u>39"</u>		1		<u>35.00</u>	<u>39.00</u>	<u>39.00</u>	1		<u>39.00</u>
$\frac{1}{4}$ L from A.P. ... <u>15.57</u> <u>17.57"</u>		4		<u>62.28</u>	<u>17.58</u>	<u>17.58</u>	4		<u>70.32</u>
$\frac{2}{4}$ L " ... <u>3.85</u> <u>4.38"</u>		2		<u>7.70</u>	<u>4.38</u>	<u>4.38</u>	2		<u>8.76</u>
Amidships ... <u>2</u>		4					4		
$\frac{3}{4}$ L from F.P. ... <u>7.70</u> <u>8.96"</u>		2		<u>15.40</u>	<u>8.96</u>	<u>8.96</u>	2		<u>17.92</u>
$\frac{1}{4}$ L " ... <u>3.15</u> <u>35.94"</u>		4		<u>124.60</u>	<u>35.93</u>	<u>35.93</u>	4		<u>143.72</u>
F.P. ... <u>70.00</u> <u>81"</u>		1		<u>70.00</u>	<u>80.00</u>	<u>80.00</u>	1		<u>80.00</u>
Total ...				<u>314.98</u>					<u>359.72</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{44.74}{18} (.75 - .362) = -.97$

If limited on account of midship superstructure.

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 = 22.55 Ft.

Summer freeboard = 5.37

Moulded draught (d) = 17.18

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 4.29 4"

Addition for Winter North Atlantic Freeboard (if required) = 2

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta = 3520$ tons

Tons per inch immersion at summer load water line $T = 18.75$

Deduction = $\frac{\Delta}{40 T}$ inches = 4.69 4"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{.764 + .68}{1.36} = \frac{1.444}{1.36}$

	+	-
Depth Correction ...	<u>3.63</u>	
Deduction for superstructures ...		<u>20.42</u>
Sheer correction ...		<u>.97</u>
Round of Beam correction ...		<u>.01</u>
Correction for Thickness of Deck amidships ...	<u>48.00</u>	
Other corrections, scantlings, etc. ...		
	<u>51.63</u>	<u>21.40</u>

Summer Freeboard = 64.53SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood, Steel, Deck~~:-

Tropical Fresh Water Line above Centre of Disc ...	<u>9</u>
Fresh Water Line " " ...	<u>4</u>
Tropical Line " " ...	<u>4</u>
Winter Line below " " ...	<u>4</u>
Winter North Atlantic Line " " ...	<u>6</u>

Tropical Fresh Water Freeboard ...	<u>5</u> <u>4</u>
Fresh Water " " ...	<u>4</u> <u>4</u>
Tropical " " ...	<u>5</u> <u>0</u>
Winter " " ...	<u>5</u> <u>8</u>
Winter North Atlantic " " ...	<u>5</u> <u>10</u>

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	...	...	101	2	3	4				
Dimensions of Hatchway	...	...	27'9" x 25'19"	27'9" x 25'0"	28'3" x 25'0"	26'4" x 25'0"				
COAMINGS	Height above Deck	...	43"	43"	43"	43"				
	Thickness	{ Sides	4 1/2"	4 1/2"	4 1/2"	4 1/2"				
		{ Ends	4 1/2"	4 1/2"	4 1/2"	4 1/2"				
	Stiffeners	...	7 x 3 x 38	7 x 3 x 38	7 x 3 x 38	7 x 3 x 38 B.A.s.				
	Brackets, Stays	2 1/2"	3	3	3	3				
HATCH BEAMS	Number	...	5	5	5	5				
	Spacing	...	4'7 1/2"	4'7 1/2"	4'8 1/2"	4'4 1/2"				
	Scantling and Sketch	...	19 1/2 x 38 6 x 8 x 46	19 1/2 x 38 6 x 8 x 46	19 1/2 x 38 6 x 8 x 46	19 1/2 x 38 4 x 8 x 46				
	Bearing Surface	...	3"	3"	3"	3"				
FORE AND AFTERS	Number	...								
	Spacing	...								
	Unsupported Lengths	...								
	Scantling* and Sketch	...								
	Bearing Surface	...								
HATCH COVERS	Material	...	W.P.	W.P.	W.P.	W.P.				
	Thickness	...	3	3	3	3				
	How fitted	...	F.A.	F.A.	F.A.	F.A.				
	Bearing Surface	...	3'6" x 12 1/2"	3'6" x 12 1/2"	3'6" x 12 1/2"	3'6" x 12 1/2"				
Spacing of Cleats	...	...	7 1/2"	7 1/2"	7 1/2"	7 1/2"				
Number of Tarpaulins	...	...	2	2	2	2				
*Are wood fore and afters steel shod at all bearing surfaces? <i>Yes</i> Are battens and wedges efficient and in good condition? <i>Yes</i> Are tarpaulins in good condition and in accordance with rule requirements? <i>Yes</i> Are lashings provided in accordance with rule requirements? <i>Yes</i>										

Particulars of fiddle, funnel and ventilator coamings:— *Stokshold gratings covered by strong steel hinged covers. Fiddle, funnel & ventilator coamings in efficient condition. Engine room skylights of steel strongly constructed.*

Particulars of Flush Bunker Scuttles:— *None.*

Particulars of Companionways:— *None.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— *In fore Well. 1 Vent 16" dia coaming 3'6" x 4' - 1 - 16" - 4'8" x 4' - R. & D. 2 - 16" - 4'0" x 4' - Wood plugs & canvas cover fitted.*

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— *In fore 1 ED air pipe 14 1/2" dia 15'7" high to F.P.T. In Well 1 W.I. 3" - 34" (26") to hot D.B.T. 2 - 3" - 39" - 2" R & D 2 - 3" - 30 1/2" (22") - E.B.T. 1 - 3" - 30 (22") - A.P.T. Wood plugs & canvas cover fitted. No shifting holes.*

Particulars of Gangway Cargo and Coaling Ports:— *None. x Lifting holes fitted drilled in upper head.*



Particulars of Scuppers and Sanitary Discharge Pipes —

All deck scuppers above decks -
Sail pipes fitted with storm valves at ship's side -

Particulars of Side Scuttles:

All scuttles fitted with hinged deadlights -

Particulars of Guard Rails:—

Rails on Inboard side 3'0" high Stanchions spaced 12'3"
Two Rails.

Particulars of Gangways, Lifelines, etc.:—

None.

No lifelines provided as
Crew are berthed aft.

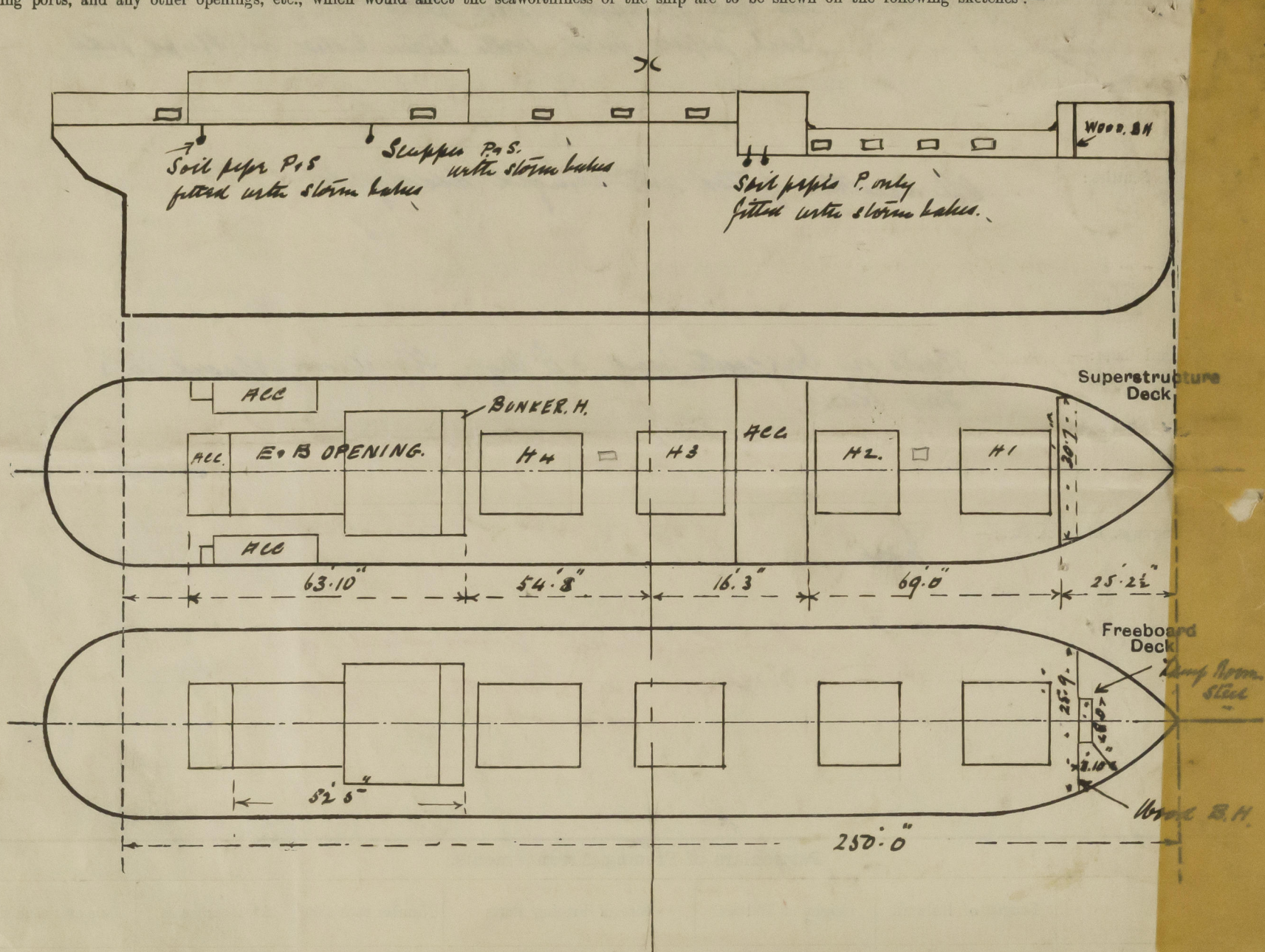
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well ... <i>R.O.D.</i> ...	<i>140'5"</i>	<i>3'3"</i>	<i>3'6" x 1'6 1/2"</i>	<i>5</i>	<i>27 sq ft</i>	<i>28 sq ft</i>
Forward Well	<i>69'0"</i>	<i>4'0"</i>	<i>3'0" x 1'6 1/2"</i>	<i>4</i>	<i>18'5 sq ft</i>	<i>14 sq ft</i>
State position of each freeing port { After Well:— <i>From R.O.D. BH 13'4" - 46'9" - 69'4" - 97'8" - 129'5" Height of sill 4"</i> (F. and A. position and height above deck edge) { Forward Well:— <i>B.HOUSE BH 10" - 11'7" - 23'11" - 41'11"</i> State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— <i>Rails 1" dia</i> 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 ...								<i>4'0"</i>
Bridge, After Bulkhead								
<i>HOUSE</i> Bridge, Forward Bulkhead	<i>42"</i>	<i>38"</i>	<i>7 1/2 x 3 1/2 x 3 1/2</i>	<i>30"</i>				<i>8'0"</i>
Forecastle Bulkhead	<i>Hand 6 1/2"</i>	<i>2</i>	<i>8 x 2</i>	<i>2'6"</i>	<i>Roller to Beam at top</i>	<i>4'10" x 3'0"</i>	<i>19"</i>	<i>7'0"</i>
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	<i>38"</i>	<i>32"</i>	<i>4 1/2 x 3 x 3 1/2</i>	<i>27"</i>	<i>Bolt T</i>	<i>4'6" x 2'0"</i>	<i>20"</i>	<i>7'1"</i>
Exposed Machinery Casings on Super-structure Decks								
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	<i>✓</i>
Raised Quarter Deck Bulkhead ...	<i>✓</i>
Bridge, After Bulkhead	<i>✓</i>
Bridge, Forward Bulkhead	<i>✓</i>
Forecastle Bulkhead	<i>Wood BH slated put in when built openings closed by storm boards 2" full height wood</i>
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	<i>Steel hinged doors operated from either side</i>
Exposed Machinery Casings on Super-structure Decks	
Machinery Casings within Superstruc-tures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships ...	

Dennis Rose

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:—

Naval examined afloat.

Bunker hatch at side top 25' 1/2 x 8' 9". coaming 18' 1/2 x 32". Port angles 3' 3" x 10' 0" on hatch beam 19' 15" x 38" angles 6' 3" x 4' 11". Beam rest 3". Hatch rest 3' 3" 12' 1/2" fitted with battens, cleats & 2 tarpaulins. Hatch cover 2" thick.

Side B.H. built of wood on each side of Club lamp room which is 8' 0" in width opening in this B.H. fitted into storm boards 2" W.P. for full height in bolted wood. Channels these channels forming the only vertical stiffeners & are bolted to Beam at top & coaming at bottom.

19.3	Draught	=	2470 tons displacement	=	18.75 T.P.
17.0	"	=	2415 "	"	"
16.0	"	=	2180 "	"	18.5.
15.0	"	=	1955 "	OMIT.	"
14.0	"	=	1745 "	"	18.3.

Builder's name and yard number

D. W. Henderson & Co. Ltd.

Names of sister ships

Owners

R. Hughes & Co.

For £

9 : 7 : 0

Received by me



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