

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

10 SEP 1932

 Computation of Freeboard for Steamer, *Sailing Ship, Tanker*
 having *Raised Quarter D*, Bridge D* and Forecastle D**
Port of Survey *Aberdeen.*Date of Survey *Sept. 6th etc. 1932.*Name of Surveyor *T. Richardson.*Particulars of Classification *100.A.1.**BEACONIA*

(Type of Superstructures.)

Ship's Name

MIA.

Nationality and Port of Registry

British Liverpool.

Official Number

147211.

Gross Tonnage

266.

Date of Build

1923.5.

Moulded Dimensions: Length *120'0"* Breadth *22'0"* Depth *10'0" M.D.**Moulded displacement at moulded draught = 85 per cent. of moulded depth *447* tonsCoefficient of fineness for use with Tables *697*

Depth for Freeboard (D)

Moulded depth ... *10'0"*Stringer plate ... *50 at Break. 04*

Sheathing on exposed deck

 $T \left(\frac{L-S}{L} \right) =$ *See Sketch.*Depth for Freeboard (D) = *10'04*

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = $\frac{10.04 - 8.00}{2.04} = 1.88$ (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) *22'0"*Standard Round of Beam = $\frac{B \times 12}{50} = 5.28$ Ship's Round of Beam = *5.5*Difference *Green 0.22*

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.22}{4} (1 - .5712) = .02$

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 ...	<i>40.75</i>	<i>40.75</i>	<i>3'0"</i>	<i>3.00</i>	<i>39.02</i>
" overhang ...					
Bridge enclosed ...	<i>8.75</i>	<i>8.75</i>	<i>7'0"</i>		<i>8.75</i>
" overhang aft ...					
" overhang forward ...					
Fore enclosed <i>equi</i> ...	<i>18.12</i>	<i>18.12</i>	<i>6'25"</i>		<i>18.12</i>
" overhang ...	<i>3.5</i>	<i>4</i>			<i>4</i>
Trunk aft ...	<i>1.88</i>				
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<i>69.50</i>	<i>68.56</i>			<i>66.83</i>

Standard Height of Superstructure *6.00*" " R.Q.D. *3.133*Deduction for complete superstructure *18.00*Percentage covered $\frac{S}{L} = 57.92$ " " $\frac{S_1}{L} = 57.12$ " " $\frac{E}{L} = 55.69$ Percentage from Table, Line A. *39.97*

(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 = $18.00 \times .3997 = 7.20$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>22.00</i>	1		<i>22.00</i>	<i>21.5</i>	<i>21.00</i>	1		<i>21.00</i>
$\frac{1}{4}$ L from A.P. ...	<i>9.79</i>	4		<i>39.16</i>	<i>10.2</i>	<i>9.09</i>	4		<i>36.26</i>
$\frac{2}{4}$ L " ...	<i>2.42</i>	2		<i>4.84</i>	<i>3.2</i>	<i>2.27</i>	2		<i>4.54</i>
Amidships ...		4					4		
$\frac{3}{4}$ L from F.P. ...	<i>4.84</i>	2		<i>9.68</i>	<i>5.5</i>	<i>4.54</i>	2		<i>9.08</i>
$\frac{1}{4}$ L " ...	<i>19.58</i>	4		<i>78.32</i>	<i>17.5</i>	<i>18.17</i>	4		<i>72.68</i>
F.P. ...	<i>44.00</i>	1		<i>44.00</i>	<i>47</i>	<i>42.00</i>	1		<i>42.00</i>
Total ...				<i>198.00</i>					<i>185.66</i>

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{12.34}{18} = .685$ (deficient)

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 = *10'04*Summer freeboard = *60*Moulded draught (d) = *9.44*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *2.36* = *2 3/8*Addition for Winter North Atlantic Freeboard (if required) = *2" + 2 3/8" = 4 3/8"*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 513$

Tons per inch immersion at summer load water line

T = *5.40*Deduction = $\frac{\Delta}{40T}$ inches= *2.37*= *2 3/8*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{697 + .68}{1.36} = \frac{1.377}{1.36}$

	+	-
Depth Correction ...	<i>1.88</i>	
Deduction for superstructures ...		<i>7.20</i>
Sheer correction ...	<i>.32</i>	
Round of Beam correction ...		<i>.02</i>
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		
	<i>2.20</i>	<i>7.22</i>

Summer Freeboard = *7.13*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Wood, Steel, Deck*:- *M.D.**Tropical Fresh Water Line above Centre of Disc ... *4 1/2*Fresh Water Line " " ... *2 1/4*Tropical Line " " ... *2 1/4*Winter Line below " " ... *2 1/4*Winter North Atlantic Line " " ... *4 1/4*Tropical Fresh Water Freeboard ... *0 - 7 1/4*Fresh Water " " ... *0 - 2 3/4*Tropical " " ... *0 - 5 1/4*Winter " " ... *0 - 9 1/4*Winter North Atlantic " " ... *0 - 11 1/4*

13 SEP 1932

1001,2,31

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11/11/32
RECEIVED
1 MAY 1933

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15 SEP 1932

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway			IN FORE WELL				Bunker Hatch on Casing Top.		
Dimensions of Hatchway			38'6" x 12'6"				12'0" x 3'11"		
COAMINGS	{	Height above Deck	2'6"				13"		
		Thickness	Sides	44"			3"		
			Ends						
		Stiffeners	F. & A.	7' x 3" x 40" B.A.				✓	
		Brackets, Stays	7' x 3" B.P. 7'8" apart.				✓		
HATCH BEAMS	{	Number	7						
		Spacing	4'10"						
		Scantling and Sketch							
		Bearing Surface	3"						
FORE AND AFTERS	{	Number							
		Spacing							
		Unsupported Lengths							
		Scantling* and Sketch							
		Bearing Surface							
HATCH COVERS	{	Material	W. Wood				W. Wood		
		Thickness	2 1/2"				2 1/2"		
		How fitted	8 x 2				3 x 2		
		Bearing Surface	1 1/2" in Coaming 3" on Webs.				3"		
Spacing of Cleats			24"				max. 24"		
Number of Tarpaulins			2				2		
*Are wood fore and afters steel shod at all bearing surfaces? none.									
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? none.									

Particulars of fiddle, funnel and ventilator coamings:—

Stoke Hold Grating covered by strong steel hinged cover. -
Funnel and funnel vent in efficient condition -
Engine skylight of steel, strongly constructed. Steel hinged flaps -

Particulars of Flush Bunker Scuttles:—

2 Scuttles on Quarter Deck of Cast Iron, fitted with screw covers. Grating below.
18" diam^r. No chain attachment. 1. Part. 1. Stair^d.

Particulars of Companionways :—

One Entrance through Wheel House to Bridge Accommodation. Opening in B. Dth. 3'6" x 2'0".
Teak Door in Wheel House 4'2" x 2'0". 1 1/2" frame. 1" panels. manipulated both sides. 16" Sill.

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

2 Vents on Forecastle Dk. 6" diam^r. Coamings 18"x³/₁₆" led to Crew Space in Forecastle.
 1. Goose neck Vent on Side Dk. 6"x4" oval. W.I. led to Bin Store. 9" above Dk.
 1. Vent on main Dk. (30") 10" diam^r. Coaming 2.10"x⁶/₁₆" led to Hold.
 1. " Bridge " 6" diam^r. 8" high (must) led to Bridge's accommodation.

all Vents constructed in accordance with the Rules and coverings closed with Wood plug & Canvas Covers.

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

1. C.1. Air pipe on Forecastle Dk. 15" high x $1\frac{3}{4}$ " diam. from Fore Peak.
1. C.1 " " Quarter Dk. 30" high x 2" " " after "
1. C.1 " " " " 6" " x 2" " " " "

all air pipes have sniffing holes on top and are closed with Canvas Covers.

Particulars of Gangway Cargo and Coaling Ports:—

none.

Particulars of Scuppers and Sanitary Discharge Pipes —

Elbow Scuppers and Scuppers thro Gunwale Bar on R. Q. D^k + Main D^k (see sketch) Elbow Scuppers out 9" below D^k 3" diam. Discharge from Crews W.C. forward, out 6" above Deck. No storm valve fitted. Head pipe 4" diam. " " W.C. in Eng. Casings " 22" below Q^r D^k G.M. Storm valve at ships. side. C.S. pipe.

Particulars of Side Scuttles:

Side Scuttles in Forecastle 8" diam. fitted with hinged Deadlights
" " " Bridge 8" " " " " (sides + front)
All scuttles of substantial construction.

Particulars of Guard Rails:—

Guard rails on Forecastle 3'0" high with 3 rods and stanchions spaced not more than 4'0" apart.
Steel bulwarks on Main D^k 3'7½" high. on Quarter D^k 3'6" high, on Bridge D^k 3'0" high.
Efficiently constructed and supported.

Particulars of Gangways, Lifelines, etc.:—

Top of Hatchway in Fore well forms Gangway, with stanchions 3'0" high. 6'6" apart on fore side fitted to f. & a. stiffener on Hatch coaming with steel wire rope set up.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Raised Quarter D ^k Fore Well ...	40'9"	3'6"	$\left\{ \begin{array}{l} 3'0" \times 1'9" \\ 2'0" \times 1'3" \\ 2'0" \times 1'6" \end{array} \right.$	$\left\{ \begin{array}{l} 1 \\ 1 \end{array} \right.$	$\left\{ \begin{array}{l} 10.75 \\ 5.59 \end{array} \right.$	10.6
Forward Well ...	50'9"	3'7½"	2'0" x 1'6"	4	12.4	11.6

State position of each freeing port ... } After Well:— from after end of Bridge 1'9" 27'9" 10" above deck.
(F. and A. position and height above deck edge) } Forward Well:— " fore " " 1'0" 12'0" 22'9" 33'7" 10" " "
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Some have hinged shutters with one rod. remainder one rod only.
Additional area where sheer is less than standard. x has 2 rods.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

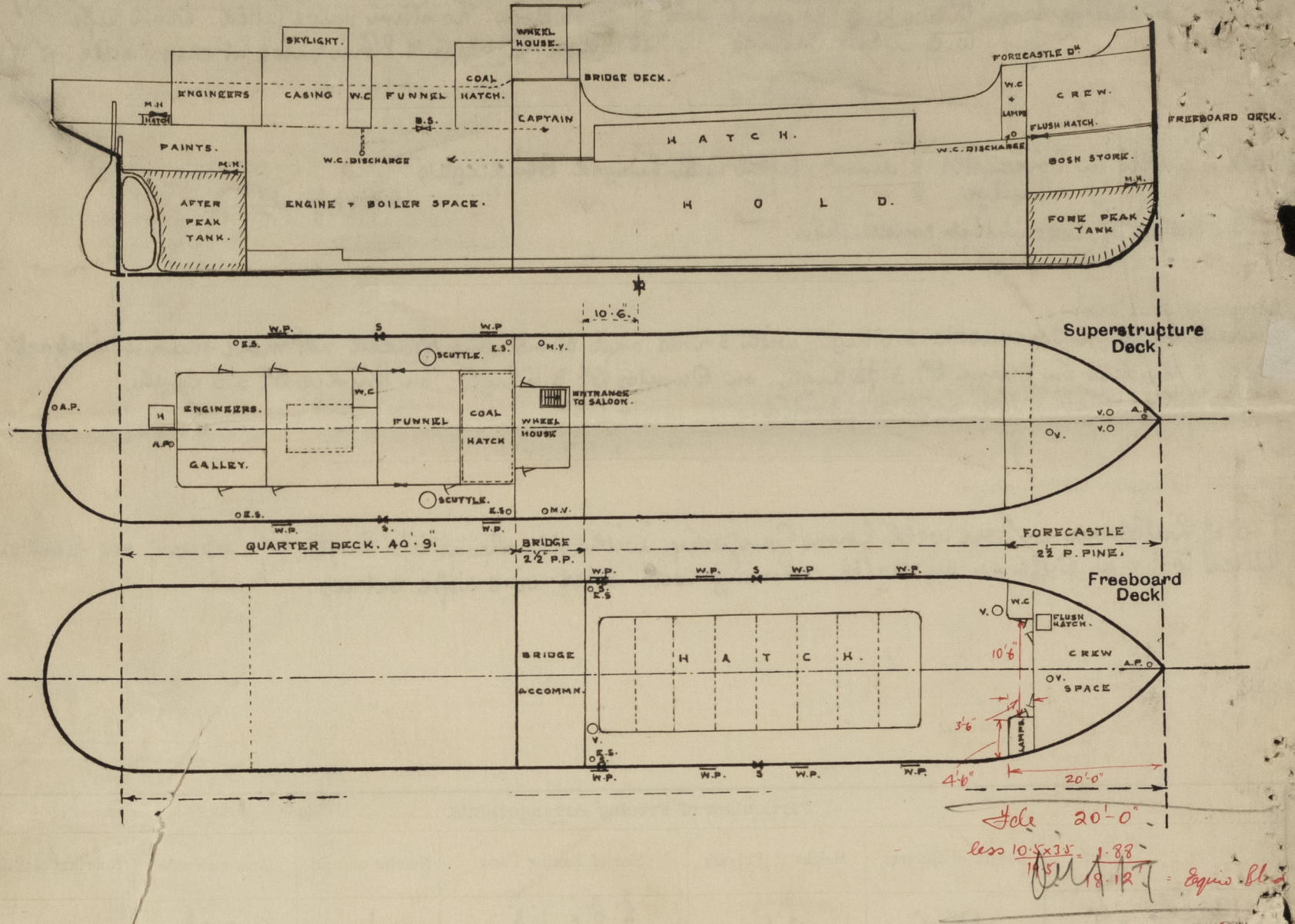
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ...								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ...	½"	½"	5" x 3" x 7/16"	24"	Brackets top and bottom	✓	✓	9'0" 3'0" 6'0" 7'0"
Bridge, Forward Bulkhead ...	½"	½"	4" x 3" x 7/16"	27"	Brackets at bottom	5'8" ligab	✓	7'0"
Forecastle Bulkhead ...	1"	½"	3" x 3" x 7/16"	42"	✓	Teak Doors 4'2" x 2'0"	15"	6'3"
Trunk, Aft ...								
Trunk, Forward ...								
Exposed Machinery Casings on Fore- board Raised Quarter Decks ...	5/16"	½"	2½" x 2½" x ¼"	not more than 30"	Brackets top	4'2" x 1'10½"	18"	6'7"
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 ...	
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead ...	none.
Bridge, Forward Bulkhead ...	5. 8" diam. ligab. Hinged deadlights fitted.
Forecastle Bulkhead ...	2. Teak doors to Deck 1½ frames 1" panels 4'2" x 2'0". 15" sill. manipulated both sides.
Exposed Machinery Casings on Fore- board Raised Quarter Decks ...	2. 5" steel doors to Eng. Room 4'2" x 1'10½". 1. 6" to C. 4'2" x 2'0". 1. 6" Gallery in Balbes. 4'2" x 2'0".
Exposed Machinery Casings on Super- structure Decks ...	1. Teak door to Eng. Accom. 4'2" x 1'10½". 1½ frame. 1" panels. 2 small doors for Ashes 30" x 15" 22½" sill.
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances ...	1. Steel door to Stoke Hold 4'2" x 2'0". Manipulated both sides. except ash doors which are pinned outside
Deckhouses on Flush Deck Ships ...	

Beaconia

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:—

This vessel is generally engaged in Coasting and Irish Trade.
Timber Freeboard not required.

Vessel surveyed on the Pontoon and in conjunction with the S.B. No. 2. which is to be completed, within a month. Report of S.B. No. 2. will follow in due course.

Particulars of Displacement etc as received from the Builders
 External Displ at 9' 9" = 496 Tons. Tons per inch = 5.38.
 " " " 10' 0" = 512 " " " " = 5.4.
 " " " 10' 3" = 529 " " " " = 5.41.

Builder's name and yard number Manchester Dry Docks Co. Ltd. Ellesmere Port.

Names of sister ships _____

Owner Wm. F. Cook. 91, Irvine Place, Aberdeen.

Fee £ 3 : 8 : 0. Received by me [Signature]