

W136
Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <u>Baltimore Md.</u>
having _____					Date of Survey <u>31st March 1932</u>
(Type of Superstructures.)					Name of Surveyor <u>Hastewart</u>
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build	Particulars of Classification <u>+100 A1</u>
<u>"LAGANBANK"</u>	<u>British</u> <u>Belfast</u>	<u>161873</u>	<u>5583</u>	<u>1930</u> <u>12m.</u>	<u>with freeboard</u>
Moulded Dimensions: Length	<u>425.00</u>	Breadth	<u>57.00</u>	Depth	<u>29.83</u>
Moulded displacement at moulded draught = 85 per cent. of moulded depth	<u>12938</u>				tons
Coefficient of fineness for use with Tables	<u>7373</u>				

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>29.83</u>	(a) Where D is greater than Table depth <input checked="" type="checkbox"/> (D-Table depth) R = $(29.87 - 28.33) \times 3$ = <u>4.62</u>	Moulded Breadth (B) <u>57.00</u>
Stringer plate <u>9.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>✓</u>	Standard Round of Beam = $\frac{B \times 12}{50} = 13.68$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam <u>12 1/2</u> = <u>15.5</u>
Depth for Freeboard (D) = <u>29.87</u>		Difference <u>deficient .18</u>
		Restricted to
		Correction = $\frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.18}{4} \times .01 = \text{NIL}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>27.90</u>	<u>27.90</u>	<u>8.75</u>		<u>27.90</u>
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward	<u>391.10</u>	<u>391.10</u>	<u>9.00</u>		<u>391.10</u>
F'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft	<u>6.00</u>	<u>3.00</u>	<u>8.75</u>		<u>3.00</u>
" " forward		<u>= 1/2 D</u>			
Total	<u>425.00</u>	<u>422.00</u>			<u>422.00</u>

Standard Height of Superstructure	<u>7.5</u>
" " R.Q.D.	<input checked="" type="checkbox"/>
Deduction for complete superstructure	<u>42.00</u>
Percentage covered $\frac{S}{L} =$	<u>100.00 %</u>
" " $\frac{S_1}{L} =$	<u>99.30 %</u>
" " $\frac{E}{L} =$	<u>99.30 %</u>
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	<u>99.14</u>
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	<input checked="" type="checkbox"/>
Deduction = <u>42.00</u> x <u>99.14</u>	= <u>-41.64</u>

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>52.50</u>	1		<u>52.50</u>	<u>57.00</u>	<u>85.00</u>	1		<u>85.00</u>
1/4 L from A.P.	<u>23.36</u>	4		<u>93.44</u>	<u>26.00</u>	<u>37.84</u>	4		<u>151.24</u>
1/2 L "	<u>5.77</u>	2		<u>11.54</u>	<u>6.00</u>	<u>9.35</u>	2		<u>18.70</u>
Amidships	<u>✓</u>	4		<u>✓</u>	<u>0</u>	<u>✓</u>	4		<u>✓</u>
3/4 L from F.P.	<u>11.54</u>	2		<u>23.08</u>	<u>14.00</u>	<u>13.86</u>	2		<u>27.72</u>
1/4 L "	<u>46.72</u>	4		<u>186.88</u>	<u>50.00</u>	<u>56.00</u>	4		<u>224.28</u>
F.P.	<u>105.00</u>	1		<u>105.00</u>	<u>110.50</u>	<u>126.00</u>	1		<u>126.00</u>
Total				<u>472.44</u>					<u>632.94</u>

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{160.50}{18} \left(.75 - \frac{.50}{.25} \right) = -2.23"$$

If limited on account of midship superstructure. ☒If limited to maximum allowance of 1 1/2 ins. per 100 ft. ☒

$$\begin{aligned} \text{Actual TD} &= 9.00 \\ \text{Standard T.D.} &= 7.50 \\ &= 1.50 \\ &= 18 \end{aligned}$$

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard.	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 13546$ Tons per inch immersion at summer load water line $T = 47.14$ Deduction = $\frac{\Delta}{40T}$ inches = <u>7.17</u> = <u>7 1/4</u>	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{7373 + 68}{1.36}$ <table><tr><td>+</td><td>-</td></tr><tr><td>Depth Correction</td><td><u>4.62</u></td></tr><tr><td>Deduction for superstructures</td><td><u>41.64</u></td></tr><tr><td>Sheer correction</td><td><u>2.23</u></td></tr><tr><td>Round of Beam correction</td><td><u>✓</u></td></tr><tr><td>Correction for Thickness of Deck amidships</td><td><u>✓</u></td></tr><tr><td>Other corrections, scantlings, etc.</td><td><u>✓</u></td></tr><tr><td><u>4.62</u></td><td><u>43.87</u></td></tr><tr><td colspan="2">Summer Freeboard = <u>43.45</u></td></tr></table>	+	-	Depth Correction	<u>4.62</u>	Deduction for superstructures	<u>41.64</u>	Sheer correction	<u>2.23</u>	Round of Beam correction	<u>✓</u>	Correction for Thickness of Deck amidships	<u>✓</u>	Other corrections, scantlings, etc.	<u>✓</u>	<u>4.62</u>	<u>43.87</u>	Summer Freeboard = <u>43.45</u>	
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<u>4.62</u>	<u>43.87</u>																			
Summer Freeboard = <u>43.45</u>																				
Depth to Freeboard Deck = <u>29.87</u> Summer freeboard = <u>3.62</u> Moulded draught (d) = <u>26.25</u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>6.56</u> = <u>6 1/2</u> Addition for Winter North Atlantic Freeboard (if required) = <input checked="" type="checkbox"/>																				

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

Tropical Fresh Water Line above Centre of Disc	<u>13 3/4</u>
Fresh Water Line " "	<u>7 1/4</u>
Tropical Line " "	<u>6 1/2</u>
Winter Line below " "	<u>6 1/2</u>
Winter North Atlantic Line " "	<u>✓</u>

Tropical Fresh Water Freeboard	<u>2 1/2</u>
Fresh Water " "	<u>3 1/4</u>
Tropical " "	<u>3 - 1</u>
Winter " "	<u>4 - 2</u>
Winter North Atlantic " "	<u>✓</u>

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	F+Sub No 1	F+Super No 2	Super Deck No 3	F+S No 4	F+S No 5	Forward Deck all hatches	Deep tank lids under No 3		
Dimensions of Hatchway	24'-0" x 22'-0"	30'-0" x 22'-0"	30'-0" x 22'-0"	30'-0" x 22'-0"	30'-0" x 22'-0"	9' ball angle	12" channel		
COAMINGS	Height above Deck	5'-30"	5'-30"	5'-30"	5'-30"	1/2"	1/2"		
	Thickness Sides	44"	44"	44"	44"	44"	44"		
	Stiffeners	7" BA x 7/16"	As nos.	As nos.	As nos.	As nos.	As nos.		
	Brackets, Stays	3" BA x 7/16"	As nos.	As nos.	As nos.	As nos.	As nos.		
HATCH BEAMS	Number	4	5	5	6	6			
	Spacing	5'-0"	5'-0"	5'-0"	4'-8"	4'-8"			
	Scantling and Sketch	4 1/2 x 3 x 7/16 angles	As nos.	As nos.	As nos.	As nos.	As structure deck		
	Bearing Surface	1 1/2" x 3 1/2"							
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling and Sketch	None	None	None	None	None			
HATCH COVERS	Material	Wood	As nos.	As nos.	As nos.	As nos.	Wood		
	Thickness	2 3/4"	As nos.	As nos.	As nos.	As nos.	2 3/4"		
	How fitted	Fore aft	As nos.	As nos.	As nos.	As nos.	with 7" T-bar stiffeners		
	Bearing Surface	3"	As nos.	As nos.	As nos.	As nos.	Bolted		
Spacing of Cleats	22"								
Number of Tarpaulins	3								

*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? *Yes*

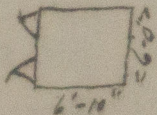
Particulars of fiddle, funnel and ventilator coamings:— *No fiddle. Motor vessel. Funnel is casing, strong, housing silencer. Ventilator coamings of steel, riveted in accordance with rules. All ventilators in excess of 36" fitted with brackets to houses or welded brackets to decks.*

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

To crew quarters forward. Hood of steel plate 5/16" with angle stiffeners 3 1/2 x 2 1/2 x 5/16 spaced 27" Hood door 2 1/2 x 1 1/2 lifts 12 1/2" opened from both sides



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

All ventilators with strong steel coamings 1/8" Riveted to steel deck in accordance with rule requirements. All coamings in excess of 36" in height bracketed to deck or house. Closed with strong wood plugs & canvas covers.

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

Air pipes on superstructure deck fitted at stringer plate. Height 28" with goose neck. Ends fitted with pierced life No means for closing fitted. All air pipes are fitted with wood plugs & canvas covers.

Particulars of Gangway Cargo and Loading Ports:—

None.

Rpt. C. 11 (Contd.)

Index No. 33915

Lloyd's Register of Shipping.

Ship's Name LAGANBANK

Official No. 161873

Memorandum of alterations reported since ship was surveyed for assignment of Load Lines in MARCH, 1932.

The hatches to No. 3 deep tank port and starboard on main deck have now been increased from 3'0" x 3'0" to 3'0" x 6'0" (6' athwartship). The 12" diameter deep tank ventklator abreast the hatch has been shifted to the after end of the hatchway. Hatch coamings partly renewed and a new steel cover made. A doubling plate (9'0" x 2'8" x 1/2") fitted on the stringer plate port and starboard side in way of the openings. Deep tanks tested by water pressure on completion and new hatches and ventilators found tight. (Ant. Rpt. 8 No. 21433, dated 11.10.37).

handed 19.10.37

RETAIN



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Laganbank.

Particulars of Scuppers and Sanitary Discharge Pipes — *Scuppers from freeboard deck fitted to discharge about 18" below deck. Outer ends fitted with automatic non return valves - cast iron.*
Sanitary Discharge pipes from above freeboard deck.

Particulars of Side Scuttles: *Dead lights attached to scuttle at all air ports in accommodation.*

Particulars of Guard Rails: — *Guard Rails or Bulwarks fitted on all exposed portions of superstructure deck.*

Particulars of Gangways, Lifelines, etc.: — *None.*

RETAIN

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>Open Rails for in excess of 1/2 length.</i>			<i>See report.</i>		X
Forward Well ...						
State position of each freeing port ... After Well:— (F. and A. position and height above deck edge) Forward Well:— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 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 ...								
Bridge, After Bulkhead ...								
Bridge, Forward Bulkhead ...								
Forecastle Bulkhead ...								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	<i>3/8</i>	<i>5/16</i>	<i>4x2 1/2 BA</i>	<i>26" to 30"</i>	<i>Not bracketed</i>	<i>None</i>		
Exposed Machinery Casings on Superstructure Decks ...	<i>3/8</i>	<i>5/16</i>	<i>4x2 1/2 BA</i>	<i>26" to 30"</i>	<i>Not bracketed</i>	<i>6'-0" x 3'-6"</i>	<i>Top 13"</i>	<i>8'-9"</i>
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	<i>3/8</i>	<i>5/16</i>	<i>4x2 1/2 BA</i>	<i>48"</i>	<i>Bracketed</i>	<i>Wood doors 26" x 1 3/4"</i>	<i>14"</i>	<i>8'-9"</i>
Deckhouses on Flush Deck Ships ...	<i>3/8</i>	<i>5/16</i>	<i>4x2 1/2 BA</i>	<i>36" to 39"</i>	<i>Bracketed</i>	<i>Wood doors 26" x 1 3/4"</i>	<i>14"</i>	<i>8'-9"</i>

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead ...	<i>No openings</i>
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead ...	
Bridge, Forward Bulkhead ...	<i>Shifting Boards fitted full height of opening in channels riveted to Bulkhead.</i>
Forecastle Bulkhead ...	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	<i>No openings</i>
Exposed Machinery Casings on Superstructure Decks ...	<i>Wood doors 26" x 1 3/4" Manipulated from both sides, to Deck House.</i>
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	
Deckhouses on Flush Deck Ships ...	<i>Wood doors 26" x 1 3/4" Manipulated from both sides.</i>

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This hand-drawn plan view illustrates the deck layout of a ship, divided into three main sections: the Superstructure Deck, the Freeboard Deck, and the Tonnage Opening.

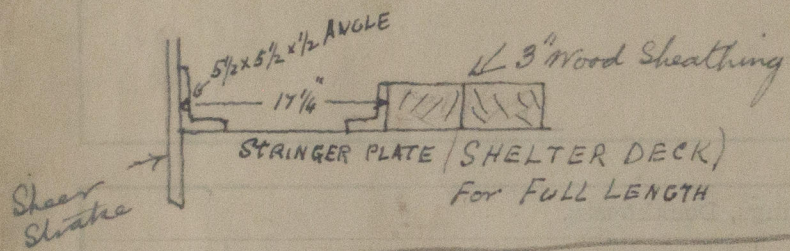
Superstructure Deck: The top section shows the hull structure with various compartments labeled No 1 through No 5. It includes structural details such as "PLATE BULWARKS", "RAILS & STANCHIONS", and "SCUPPERS From Freeboard Deck with Automatic Non-Return VALVES".

Freeboard Deck: The middle section shows the deck layout with compartments No 1, No 2, No 3, No 4, and No 5. It includes structural details such as "PLATE BULWARKS", "RAILS & STANCHIONS", and "SCUPPERS From Freeboard Deck with Automatic Non-Return VALVES".

Tonnage Opening: The bottom section shows the hull structure with various compartments labeled No 1 through No 5. It includes structural details such as "PLATE BULWARKS", "RAILS & STANCHIONS", and "SCUPPERS From Freeboard Deck with Automatic Non-Return VALVES".

The drawing is a technical sketch on aged paper, showing the layout of the ship's deck and various compartments. The compartments are labeled with numbers (No 1, No 2, No 3, No 4, No 5) and names (MOTOR SPACE, INSULATED CARGO, INSULATED CARGO). The drawing also shows structural details like RAILS & STANCHIONS, PLATE BULWARKS, and SCUPPERS. The overall shape of the ship is elongated with a pointed bow and a rounded stern.

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



Sum of involved = 26.25
Red $\frac{.12}{26.37}$

$$\begin{array}{r} 13353 \\ 193 \\ \hline 13546 \end{array}$$

T. P. 1
47.28
47.05

23

6/11/11

Builder's name and yard number.

Names of sister ships.

Owners

Feb 2

Received by me