

29/83
WRITTEN

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.-STEAM SHIPS.

NOV 1917

PARTICULARS RELATING TO ALL STEAM SHIPS EITHER FLUSH DECKED, OR WITH TOP GALLANT FORECASTLES, SHORT POOPS AND BRIDGE HOUSES DISCONNECTED, OR WITH TOP GALLANT FORECASTLES HAVING LONG POOPS, OR RAISED QUARTER DECKS CONNECTED WITH BRIDGE HOUSES, OR OTHERWISE.

Port of Survey *Shull*
Date of Survey *5/2/17*
Name of Surveyor *W. A. M. Aspinall*

Cochrane & Sons No 729

Ship's Name. <i>S/Lithium</i>	Port of Registry and Nationality. <i>British</i>	Official Number. <i>137540</i>	Gross Tonnage. <i>301</i>	Date of Build. <i>New Vessel</i>	Particulars of Classification. <i>-100 A / Class contemplated</i>
Number in Register Book <i>59 Supp.</i>					

Registered dimensions from Ship's Register.	LENGTH. <i>135.2</i>	BREADTH. <i>23.15</i>	DEPTH. <i>9.4</i>	UNDER DECK TONNAGE. <i>205.78</i>
Length on LOADLINE.	<i>135.2</i>	Frame Depth Rule <i>4</i>	Ceiling fitted <i>Peak</i>	Tanks <i>me in</i>
CORRECTED DIMENSIONS.	<i>135.2</i>	<i>22.99</i>	<i>9.86</i>	<i>205.78</i>

Moulded Depth as measured..... *10' 6"*
 $\frac{11-0}{1-5} = 9.7$

NOTE. - If the depth is measured when vessel is afloat, the details of measurement should be reported.

CORRECTION FOR LENGTH.

Length of Ship on Loadline.....	<i>135.2</i>
Length in Table	<i>126</i>
Difference	<i>9.2</i>
Correction for 10ft., Table A.	<i>9</i>
× Difference divided by 10	<i>+ .82</i> (if required.)
If $\frac{1}{10}$ ths length covered divide by 2	<i>+ 3/4 Par 14</i> <i>+ 1/2 Par 11</i>

Co-efficient of fineness..... *.688.67*
 Any modification necessary [Para. 4 (a) to (e)]*
 Co-efficient as corrected *.688.67*

5762 CORRECTION FOR IRON DECK.

Proportion covered, if less than $\frac{1}{10}$ ths length covered	<i>.572</i>
Thickness of usual wood deck, less stringer	<i>2 1/2</i>

Sheer at Stem..... *45*
 at Sternpost ... *21*
 $66 \div 2 = 33$ Mean *33.63*
 $\frac{23.52}{36} = 10.11$
 $\frac{28}{36} = .78$

Sheer at $\frac{1}{2}$ of the length from Stem *25*
 Sternpost *13*
 $37 \div 2 = 18.5$ Mean *18.5*
 $\frac{33.63}{2} = 16.815$

Gradual mean Sheer *33.31*
 Standard mean Sheer [Table, Para. 18] *23.52* Correction
 Difference..... *4.4* $9.79 \div 4 = 2.45$
 $\div 4 = -1$ Par 14

§ If limited as Para. 18 (f).....

CORRECTION FOR ROUND OF BEAM.

Breadth at Gunwale amidships.....	<i>23.0</i>
Round of Beam	<i>6</i>
Normal round.....	<i>5 3/4</i>
Difference	$\div 2 =$
Proportion of Deck uncovered (Para. 19)	

NOTE. - The round of beam should be reported on the full breadth of vessel at the gunwale.

Rise in Sheer from amidships [Para. 18 (e)]
 At front of bridge house.....
 At after end of forecastle

Fall in Sheer [Para. 18 (d)]
 $\div 2 =$ *no drop.*
 Length uncovered

Freeboard, Table A	<i>1.5</i>
Correction for Sheer	<i>- 2 1/2</i>
Correction for Length	<i>- 6 3/4</i>
Allowance for Deck Erections	<i>- 4 1/2</i>
Correction for Round of Beam.....	<i>10 3/4</i>
Correction for fall in Sheer (if any).....	<i>10 1/4</i>
Correction for Iron Deck (if required)	<i>- 1 1/2</i>
Additions for non-compliance with provisions of Para. 11 (d) and (e) †	<i>8 3/4</i>
Other Corrections (if any)	

ALLOWANCE FOR DECK ERECTIONS :-

Freeboard, Table C.....	<i>2</i>
Correction for Length, if required (Para. 12, 13, and 14) $\frac{+ 1/2}{2 1/2}$	<i>2 1/2</i>
Freeboard by Table A, corrected for sheer, and for length, if required (Para. 12, 13, and 14) $1.5 - 2 1/2 = -1.0$	<i>1.0</i>
Difference	<i>1.0</i>
Percentage as below	<i>32%</i>
Sheer - $2 1/2$ length + $1/2$ Erections = 7.5	<i>7.5</i>
" - 1 " + $3/4$ " - 5 = $5 1/4$	<i>5 1/4</i>

Correction for R. Q. Dk. if engine and boiler openings not covered by bridge house (Para. 11) $5 1/2 + (85 \times 1 1/2) = 6 3/4$

Allowance for Deck Erections $5 1/2 + 1 1/2 = 7$

Winter Freeboard	<i>8 3/4</i>
Summer Freeboard	<i>8 7/4</i>
Indian Summer Freeboard	
N. A. Winter Freeboard	
Correction necessary because clearside amidships, measured in accordance with the Statute is not taken at the intersection of the wood or iron deck with side.	<i>+ 1</i>
Winter Freeboard from deck line	<i>12 3/4</i>
Summer " " " "	<i>9 8/4</i>
Indian Summer " " " "	
N. A. Winter " " " "	

	Length.	Length allowed.	Height.
Forecastle.....	<i>31.7</i>	<i>20.82</i>	<i>6.6</i>
Bridge House	<i>8.11</i>	<i>8.93</i>	<i>7.0</i>
† Raised Qr. Dk.....	<i>49.6</i>	<i>49.50</i>	<i>3.6</i>
Poop.....		<i>79.05</i>	
Total		<i>80.01</i>	<i>5.78</i>
Length of Ship	<i>135.2</i>		<i>.585</i>
Corresponding percentage (Para. 11, 12, 13, or 14)		<i>36.73%</i>	

FREEBOARD recommended amidships from centre of Disc to top of Statutory Deck Line, Wood (Iron) Deck :-

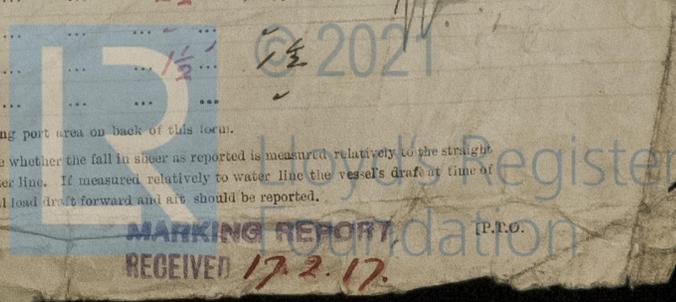
Fresh Water Line	above	centre of Disc
Indian Summer Line	"	"
Winter Line	below	"
Winter North Atlantic Line	"	"

9.2.17

State dimensions of freeing port area on back of this form.
 The surveyor should state whether the fall in sheer as reported is measured relatively to the straight line of keel or to the water line. If measured relatively to water line the vessel's draft at time of survey, and also the usual load draft forward and aft, should be reported.

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Do the Frames extend to the top height in the Poop? *yes* Raised Quarter Deck? *yes* Bridge House? *yes*
 To what height do the Reverse Frames extend? *angle framing*
 Has the Poop or Raised Quarter Deck an efficient Iron Bulkhead at the fore end? *yes*
 Give particulars of the means for closing the openings in Bulkhead *no openings*
 Is the Poop or Raised Quarter Deck connected with the Bridge House? *yes* Has the Bridge House an efficient Bulkhead at the fore end?
 Give particulars of the means for closing the openings in Bulkhead *no openings*
 What is the thickness of the Bridge Front plating? *24* and Coaming plate? *24*
 Give scantlings and spacing of the Stiffeners *3 1/2 x 2 1/2 x .36 angles, 24" apart*
 Are bracket plates fitted at each end of the Stiffeners? *yes* Are hor'l. brackets fitted connecting Bridge Bulk'd. with Bulwarks?
 Has the Bridge House an efficient Iron Bulkhead at the after end? *yes*
 How are the openings closed? *no openings*
 Is the Forecastle at least as high as the main or top-gallant rail? *yes* Has the Forecastle an efficient Iron or Wood Bulk'd. at after end? *yes*
 Are the Engine and Boiler openings covered by a Bridge, Poop, Raised Quarter Deck, or enclosed by a Strong Iron or Steel Deckhouse? *yes*
 If the openings are not so protected are the exposed parts of the Casings efficiently constructed? *yes*
 Give thickness of plating; scantlings and spacing of Stiffeners *.30 coaming, plating .30, stiffeners 3 x 3 x .30, 24" apart*
 What is the height of the exposed Casings? *6'6"* Are suitable means provided for closing all openings in them in bad weather? *steel doors*
 Are the Weather Deck Hatchways efficiently constructed and at least equal to the requirements of Section 28 of the Rules for 1904-5? Give particulars below:— *yes*

Position and Size.		45'6" x 13'6"									
Item.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	
COAMING.	Height above top of DECK	36	36								
	Thickness	Sides.....	45	45							
		Ends.....	45	45							
SHIFTING BEAMS OR WEB-PLATES.	Number.....	8	8								
	Section and Scantlings.....	14" x 6"	14" x 6"								
	Material.....	4 angles	4 angles								
* FORE AND AFTERS.	Number.....										
	Section and Scantlings.....										
	Material.....	none									
HATCHES Thickness.....	2 1/2	2 1/2									
Remarks.....	white finish										

* When the Fore and Afters are of wood the depth should be stated from the underside of the hatches.

(If the sill of the lowest side scuttle will be less than 6 inches above the Indian Summer Load Line if assigned under the tables, state vertical distance from top of deck at side amidships to lower edge of lowest side scuttle.) *no scuttles below weather deck*

The following information is to be given in all Cases of vessels dealt with under Paras. 11, 12 (under 15 feet Moulded depth) and under Shelter Deck Rules.

What is the thickness of the Bridge Sheerstrake? *Strake between Main and Bridge Sheerstrakes?*

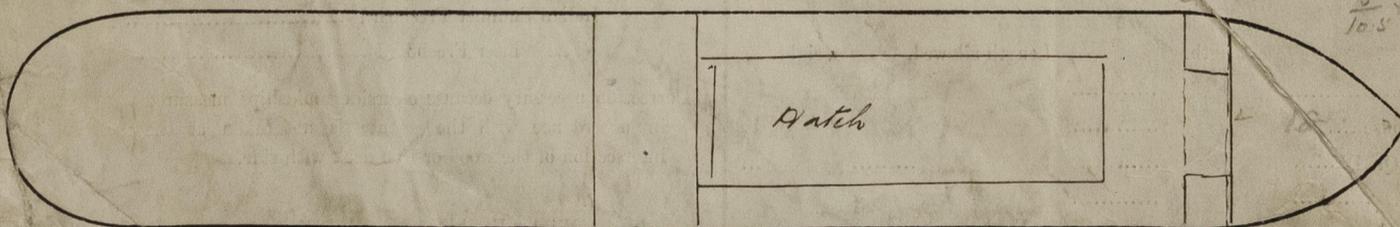
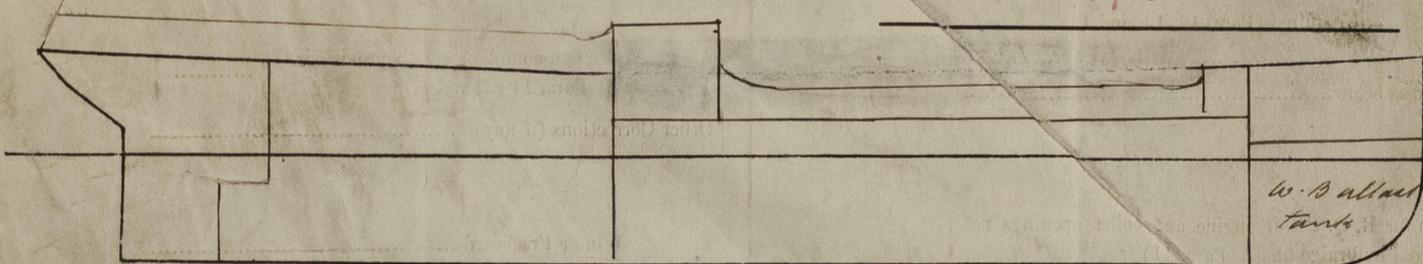
Delete the words { The Crew ~~are~~ are not, berthed in the bridge house.
 that do not apply { The arrangements to enable them to get backwards and forwards from their quarters are, ~~are~~ satisfactory.

Length of Bulwarks in well *56'0" 3'6" high*

Area of Freeing Ports required by Para. 11 (e) each side of vessel = *12.8* Sq. ft.

Ft. Tenths. Ft. Tenths. No. } Freeing Ports (each side of vessel) = *12.89* Sq. ft.

Total deficiency or excess = *about .89* Sq. ft.



Show hereon line of Floors or Tank Top with position of any Breaks in same; also height of Peak Tank tops, &c., &c.

State any special features in the construction of the Vessel *Ordinary Hoos, deep angle frames, (see*

plans 3 herewith. Forward request form herewith

Builder's Owners *Cochrane & Sons, Ltd.*

Address *Leby*

See *✓* vessel Received by me *✓*



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