

pt. C.11.

Index. No. **29422**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

26 JUL 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Loop, Bridge & Forecastle

Port of Survey Montreal

Date of Survey 29th June 1932

Name of Surveyor J. Allan

Particulars of Classification +100 A.1.
SS off No. 1-30

(Type of Superstructures.) per reg 21/2/48

Ship's Name "Galgary" Nationality and Port of Registry British Liverpool Official Number 143707 Gross Tonnage 7275 Date of Build 1920-11 1921-2 mo

Moulded Dimensions: Length 439.16 Breadth 59.0 Depth 33.11
Moulded displacement at moulded draught = 85 per cent. of moulded depth 2885 16721 tons
Coefficient of fineness for use with Tables .792

Depth for Freeboard (D) 33.92

Moulded depth ... 33.11 ... 33.92

Keel plate ... 1/4"04

Leath on exposed deck no sheathing on deck

$T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = 33.96

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = (33.96-29.31)3 = +13.95

(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) 59.0

Standard Round of Beam = $\frac{B \times 12}{50} =$ 14.16

Ship's Round of Beam 12" = 12

Difference 2.16

Restricted to

Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L}\right) =$ $\frac{2.16^2}{4} (1 - .6231) = +.72$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	37.13	37.13	8.0		37.13
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	187.92	187.92	8.75		187.92
" overhang aft ...					
" overhang forward ...					
Forecastle enclosed ...	48.87	48.87	8.21		48.87
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...	273.92	273.92			273.92

Standard Height of Superstructure 7.50

" " R.Q.D. 42.10

Deduction for complete superstructure 42.10

Percentage covered $\frac{S}{L} =$ 62.31

" " $\frac{S_1}{L} =$ 62.31

" " $\frac{E}{L} =$ 62.31

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

Percentage from Table, Line B.
(corrected for absence of forecastle (if required)) 49.93

Interpolation for bridge less than 2L (if required)

Deduction = 42 + .4993 = 20.97

plotted SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
P. ...	53.96	1	53.96	31.00	31.00	1	31.00
from A.P. ...	24.01	4	96.04	10.46	9.10	4	36.40
" ...	5.94	2	11.88	2.62	-1.0	2	-2.00
amidships ...		4				4	
from F.P. ...	11.87	2	23.74	11.24	13.25	2	26.50
" ...	48.03	4	192.12	40.90	41.50	4	166.00
P. ...	107.92	1	107.92	91.00	91.00	1	91.00
Total ...			485.66				352.90

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ $\frac{-4}{348.90} = -.0115$

If limited on account of midship superstructure.

Mean actual sheer aft = deficient

Mean standard sheer aft

Mean actual sheer forward = deficient

Mean standard sheer forward

Length of enclosed superstructure forward of amidships = .19L

" " aft of " = .23L

$\frac{136.76}{18} (.75 - .3115) = +3.33$

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 33.96

Summer freeboard = 7.27

Moulded draught (d) = 26.69

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.67 = 6 3/4

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta =$ 15659

Tons per inch immersion at summer load water line $T =$ 52.2

Deduction = $\frac{\Delta}{40T}$ inches = 7.50

= 7 1/2"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{792 + .68}{1.36} = \frac{1472}{1.36}$

Depth Correction ... 13.95

Deduction for superstructures ... 20.97

Sheer correction ... 3.33

Round of Beam correction20

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. ...

17.48 20.97 - 3.49

Summer Freeboard = 87.31

SUMMER FREEBOARD amidships from Centre of Disc to the

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line

Winter Line

Winter North Atlantic Line

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

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Lloyd's Register
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PARTICULARS OF PROTECTION TO OPENINGS.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	N°1.	N°2.	N°3.	N°4.	N°5.	N°6.	N°7.	N°8.	N°9.	N°10.
Dimensions of Hatchway	24' 9" x 16' 0"	27' 6" x 16' 0"	13' 9" x 16' 0"	20' 7" x 16' 0"	22' 4" x 16' 0"	22' 0" x 16' 0"	18' 4" x 16' 0"	20' 7" x 16' 0"	18' 4" x 16' 0"	20' 7" x 16' 0"
COAMINGS	Height above Deck	30"	30"	30"	30"	30"	30"	30"	30"	30"
	Thickness	4"	4"	4"	4"	4"	4"	4"	4"	4"
	Sides	4"	4"	4"	4"	4"	4"	4"	4"	4"
	Stiffeners	24' 9"	27' 6"	13' 9"	20' 7"	22' 4"	18' 4"	20' 7"	18' 4"	20' 7"
HATCH BEAMS	Number	5	5	5	5	5	5	5	5	5
	Spacing	4' 9"	5' 4"	4' 1"	4' 1"	4' 5"	4' 5"	4' 5"	4' 5"	4' 5"
	Scantling and Sketch	12" x 6"	6" x 4 1/2"	6" x 4 1/2"	6" x 4 1/2"	6" x 4 1/2"	6" x 4 1/2"	6" x 4 1/2"	6" x 4 1/2"	6" x 4 1/2"
	Bearing Surface	3"	3"	3"	3"	3"	3"	3"	3"	3"
FORE AND AFTERS	Number	None	None	None	None	None	None	None	None	None
	Spacing	None	None	None	None	None	None	None	None	None
	Unsupported Lengths	None	None	None	None	None	None	None	None	None
	Scantling and Sketch	None	None	None	None	None	None	None	None	None
HATCH COVERS	Material	Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
	Thickness	3"	3"	3"	3"	3"	3"	3"	3"	3"
	How fitted	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"	3" x 4 1/2"
	Bearing Surface	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Spacing of Cleats	22"	22"	22"	22"	22"	22"	22"	22"	22"	22"
Number of Tarpaulins	3 to each hatch									

Particulars of fiddle, funnel and ventilator coamings:— Fiddle coaming 6" above boat deck. No coaming on funnel. Vent coaming 6" high. All vents have permanent hinged steel covers.

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:—

None

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— Steel coamings riveted to deck. 6 Vents on Fore well deck. 2 on Forecastle deck. 6 Vents on aft. well deck. 2 on Poop deck. 20" diam. Coamings 36" high 7/16" thick. Closed by wood plugs and canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— All of substantial construction. and 27" high on bridge deck. 27" high on well deck. No attached flange or cap for closing panel. Efficient means for closing provided.

Particulars of Gangway Cargo and Coaling Ports:— 2. Battle doors in Bridge space aft. and 5' 10 1/2" x 3' 11 1/2" Watertight doors of substantial construction.

Particulars of Scuppers and Sanitary Discharge Pipes —

16. Sanitary discharges, all discharge flush or above main deck, with brass Clapper valves. 12. Scuppers on hull deck. 10. Scuppers on Bridge deck.

Particulars of Side Scuttles:—

None

Particulars of Guard Rails:—

None

Particulars of Gangways, Lifelines, etc.:—

None

Provision made for rigging lifelines in all parts of the ship which might be used by the crew.

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	80' 2"	4' 2 1/2"	2' 11" x 18"	4	17.5 sq. ft.	15.9
Forward Well	86' 3 1/2"	4' 2 1/2"	2' 11" x 18"	4	17.5 sq. ft.	17.23

State position of each freeing port (F. and A. position and height above deck edge) After Well:— 2 abreast #5 & 6. Forward Well:— 2 abreast #1 & 2. Height above deck edge 13". State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 3. Vertical bars. Additional area where sheer is less than standard.

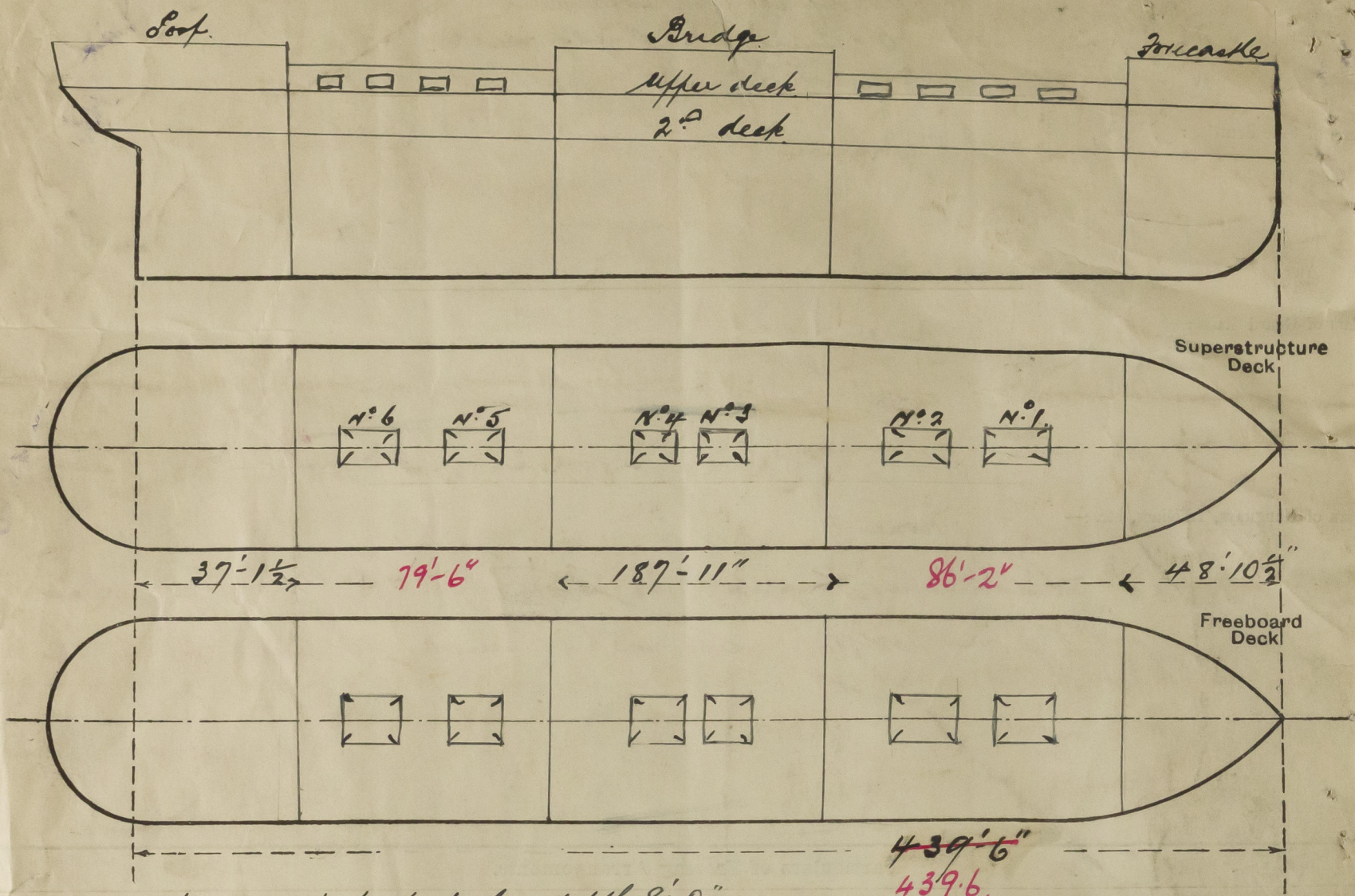
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	4 1/2"	7/16"	7" x 3 1/2"	29"	None	3' 6" x 5' 0"	18"	8' 0"
Raised Quarter Deck Bulkhead	None	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead	None	3/16"	4" x 4"	2' 8"	None	✓	11 1/2"	✓
Bridge, Forward Bulkhead	4 1/2"	1/2"	8 1/2" x 3 1/2"	27 1/2"	Bracket 18 1/2" x 19 1/2"	5' 0" x 3' 0"	19"	8' 9"
Forecastle Bulkhead	None	1/4"	3 1/2" x 2 1/2"	31"	None	2' 0" x 5' 5"	13"	8' 0"
Trunk, Aft	Where there is no coaming the plates extend from upper deck to main deck.	✓	✓	✓	✓	✓	✓	✓
Trunk, Forward	None	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Superstructure Decks	✓	✓	✓	✓	✓	✓	✓	✓
Machinery Casings within Superstructures 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	2. Hinged steel doors 3' 0" x 5' 0". Can be opened from both sides.
Raised Quarter Deck Bulkhead	None.
Bridge, After Bulkhead	2. Cargo doors 3' 5" x 5' 6". 3" wood boards fitted full height in channels.
Bridge, Forward Bulkhead	2. Watertight steel doors 5' 0" x 3' 0". Can be opened from both sides.
Forecastle Bulkhead	1. Opening door:— 2' 0" x 5' 5". Wood. Can be opened from both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Protected by deck houses.
Exposed Machinery Casings on Superstructure Decks	None.
Machinery Casings within Superstructures	None.

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



Aft. end of boat deck. depth 8' 0"
 For. end of boat deck. depth 8' 0"
 Breadth of boat deck. 44' 11"
 Length of boat deck. 80' 1"

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

Total displacement at load line 26' 8" in salt water 15,570 tons
 Average 52 tons per inch immersion
 This vessel was examined afloat at Shed #26. Montreal.

Builder's name and yard number John Brown & Co. Clydebank, Yard #596^a
 "Bohrane", "Calumet".

Names of sister ships

Owners

Elder Dempsey & Co. Ltd. Liverpool.

Fee

Received by me



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