

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

SEP 11 1937

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <u>Cornwall, P.O.</u>
having <u>Flush Deck for full length of vessel</u>					Date of Survey <u>30th March 1937</u>
(Type of Superstructures.)					Name of Surveyor <u>Geo. Allan</u>
Ship's Name <u>"Redfern"</u>	Nationality and Port of Registry <u>British Montreal</u>	Official Number <u>154910</u>	Gross Tonnage <u>1769</u>	Date of Build <u>1930</u>	Particulars of Classification <u>T.A. Sarge for service between Port of Cornwall & Montreal with full load corresponding to an average draft of 13' 0" and shown here on Great Lakes & St. Lawrence with full load corresponding to an average draft of 13' 0"</u>
Moulded Dimensions: Length <u>248' 0"</u> Breadth <u>43' 6"</u> Depth <u>15' 0"</u>					Round of Beam correction
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>4403</u> tons					Moulded Breadth (B)
Coefficient of fineness for use with Tables <u>.903</u>					Standard Round of Beam = $\frac{B \times 12}{50} =$
					Ship's Round of Beam = <u>12"</u>
					Difference
					Restricted to
					Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) =$

Depth for Freeboard (D)		Depth correction	
Moulded depth <u>15' 0"</u>		(a) Where D is greater than Table depth (D - Table depth) R =	
Stringer plate <u>.44</u>		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures	
Depth for Freeboard (D) =			

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					
„ overhang					
Bridge enclosed					
„ overhang aft					
„ overhang forward					
F'cle enclosed					
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total					

Standard Height of Superstructure _____

„ „ R.Q.D. _____

Deduction for complete superstructure _____

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

„ „ $\frac{S_1}{L} =$

„ „ $\frac{E}{L} =$

Percentage from Table, Line A. (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 = _____

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.		1		<u>12" (see letter)</u>		1	
$\frac{1}{6}$ L from A.P.		4		<u>0</u>		4	
$\frac{2}{6}$ L „		2		<u>0</u>		2	
Amidships		4		<u>0</u>		4	
$\frac{2}{6}$ L from F.P.		2		<u>0</u>		2	
$\frac{1}{6}$ L „		4		<u>0</u>		4	
F.P.		1		<u>12" (see letter)</u>		1	
Total							

Mean actual sheer aft = _____

Mean standard sheer aft = _____

Mean actual sheer forward = _____

Mean standard sheer forward = _____

Length of enclosed superstructure forward of amidships = _____

„ „ aft of „ = _____

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

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.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient
Depth to Freeboard Deck = <u>19.93</u> Ft.	$\Delta =$ _____	Depth Correction
Summer freeboard = <u>6.17</u>	Tons per inch immersion at summer load water line	Deduction for superstructures
Moulded draught (d) = <u>13.76</u>	T = _____	Sheer correction
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = _____	Deduction = $\frac{\Delta}{40 T}$ inches = _____	Round of Beam correction
Addition for Winter North Atlantic Freeboard (if required) = _____		Correction for Thickness of Deck amidships
		Other corrections, scantlings, etc.
		Summer Freeboard = <u>✓</u>

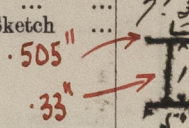
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	Tropical Fresh Water Freeboard
Fresh Water Line „ „	Fresh Water „ „
Tropical Line „ „	Tropical „ „
Winter Line below „ „	Winter „ „
Winter North Atlantic Line „ „	Winter North Atlantic „ „

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
Description of Hatchway			N ^o 1.	N ^o 2.	N ^o 3.	N ^o 4.					
Dimensions of Hatchway			36'0" x 26'0"	36'0" x 26'0"	36'0" x 26'0"	30'0" x 26'0"					
COAMINGS	{	Height above Deck	24"	24"	24"	60"					
		Thickness	Sides	5"	5"	5"	5"				
			Ends	44"	44"	44"	44"				
		Stiffeners	✓	✓	✓	3½" x 3½" x 3/8"					
		Brackets, Stays	4" x 3" x 1/8"	4" x 3" x 1/8"	4" x 3" x 1/8"	3'0" x 24" x 1/8"					
HATCH BEAMS	{	Number	4	4	4	3					
		Spacing	7'3" 1/2 x 3 1/2"	7'3"	7'3"	7'1 1/2" x 6"					
		Scantling and Sketch		"	"	"					
		Bearing Surface	3"	3"	3"	3"					
		FORE AND AFTERS	{	Number							
Spacing											
Unsupported Lengths											
Scantling* and Sketch											
Bearing Surface											
HATCH COVERS	{	Material	Wood.	Wood.	Wood.	Wood.					
		Thickness	3" Fore and aft	3" Fore and aft	3" Fore and aft	3" Fore and aft					
		How fitted	attached	attached	attached	attached					
		Bearing Surface	2 1/2"	2 1/2"	2 1/2"	2 1/2"					
		Spacing of Cleats	24"	24"	24"	24"					
Number of Tarpaulins			2	2	2	2					
<p>*Are wood fore and afters steel shod at all bearing surfaces? <i>no.</i></p> <p>Are battens and wedges efficient and in good condition? <i>yes</i></p> <p>Are tarpaulins in good condition and in accordance with rule requirements? <i>yes</i></p> <p>Are lashings provided in accordance with rule requirements? <i>yes</i></p>											

Particulars of fiddle, funnel and ventilator coamings:— *Fiddle, funnel and ventilator coamings are of substantial construction and height and in efficient condition. Covers over fiddle are hinged & efficient.*

Particulars of Flush Bunker Scuttles:— *One on port side aft fitted with chain attachment. Nil.*

Particulars of Companionways:— *To side entrances to Engine Room one on each side 7'0" high 8'6" long 2'2" wide with ~~oak~~ ^{Steel} wood doors 60" x 24" 58" x 23". Two small hatches to Forepeak 24" x 17" with 12 1/2" Coaming and hinged steel covers. (Steel) Two small hatches - One between #1 & 2 Holds and one between #3 & 4 Holds. 48" x 24" with 8" Coaming (Steel) One small hatch on top of Oil Fuel Tank 34" x 20" with 8" Coaming (Steel) Steel hatches fitted with hinged covers and properly bolted down.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— *Two Ventilators 15 1/2" dia. x 18" Coaming to Engine Room One ventilator 11" dia. x 20" Coaming to Boiler Room Nine Mushroom Ventilators 10" high x 6" dia. to aft accommodation. Wooden plugs with canvas covers as means of closing.*

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— *One goose neck forward 12" high x 4" dia. Two " " aft 12" " x 4" " Two " " Oil Fuel Tank 18" " x 3" " Two " " " " 17" " x 4" " } Wood plugs and canvas covers!*

Particulars of Gangway Cargo and Coaling Ports:—

Nil.



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Redfern

Particulars of Scuppers and Sanitary Discharge Pipes —

One - 4" W.C. Discharge and scupper discharge with storm valve below deck
One - Galley discharge 2 1/2" dia. with storm valve discharging below deck

Particulars of Side Scuttles:

Nil

Particulars of Guard Rails:—

Open rails from forward to deck house aft

Particulars of Gangways, Lifelines, etc.:—

Steel wire ropes run through stanchions at side of nosel from forward to deck house aft with turnbuckles.
Lifelines are now fitted

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 ... Bulwark For	20'0 on each side of stem	36"	5 Bulwark stanchions on Port side 2 " " " " " Star side		✓	✓
Forward Well ... Bulwark aft	Around stem	40"	13 Bulwark stanchions spaced 56" apart		✓	✓
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. ✓						

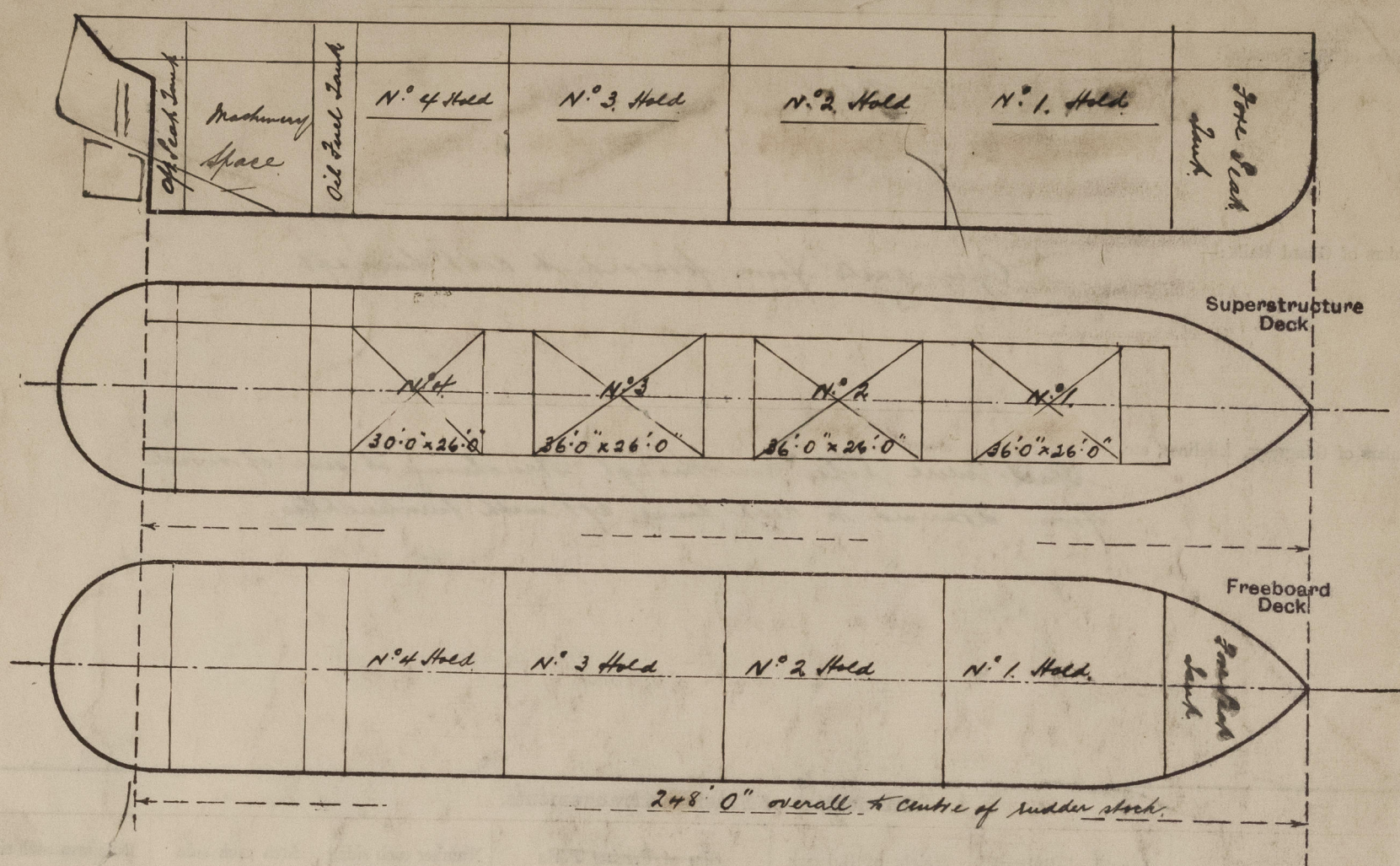
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Fore peak								
Poop Bulkhead ...	✓	3/8" x 1/4"	12" x 20.7 lb channels	31 1/4"	Brackets top and bottom	✓	✓	✓
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ...	✓							
Bridge, Forward Bulkhead ...	✓							
Forecastle Bulkhead ...	✓	3/8" x 1/4"	12" x 20.7 lb.	31 1/4"	Brackets	✓	✓	✓
Trunk, Aft ...	✓		Channels		top and bottom			
Trunk, Forward ...	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓	Within Deckhouse						
Exposed Machinery Casings on Super-structure Decks ...	✓							
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	✓							
Deckhouses on Flush Deck Ships ... enclosing Machinery Casings	✓	1/4"	3" x 2 1/2" x 5/16"	30" generally	✓	60" x 24"	18"	7'0"

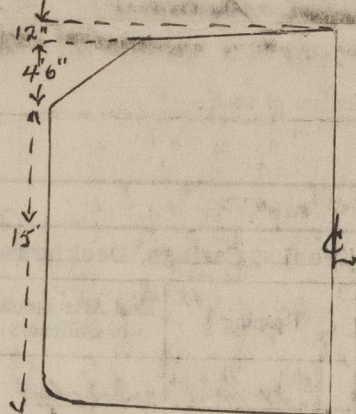
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead ...	✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ...	✓
Bridge, Forward Bulkhead ...	✓
Forecastle Bulkhead ...	✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	
Exposed Machinery Casings on Super-structure Decks ...	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	Companionways fitted with wood oak doors 55" x 25" and can be worked from both sides.
Deckhouses on Flush Deck Ships ...	

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:—



Builder's name and yard number *Canadian Vickers Lt. Montreal*

Names of sister ships *"Redwin", "Redcloud", & "Redwood"*

Owners *North American Transport Co.*

Fee £ *740.00*

Received by me



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