

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index No. **28764**
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *a raised quarter-deck, bridge and fore-castle*

Port of Survey

Date of Survey *6.8.35*

Name of Surveyor

Particulars of Classification *100M experimental electrically welded Subject to Biennial Survey.*

(Type of Superstructures.)

Ship's Name

Shean

Nationality and Port of Registry

Canadian
Mexican

Official Number

143649

Gross Tonnage

1920

Date of Build

Moulded Dimensions: Length *150.0* Breadth *23.75* Depth *11.50*

Moulded displacement at moulded draught = 85 per cent. of moulded depth

tons

Coefficient of fineness for use with Tables *under 68*

Depth for Freeboard (D)

Depth ... *11.50*Late ... *03*

on exposed deck

(-S)

L)

Depth for Freeboard (D) = *11.53*

Depth correction

(a) Where D is greater than Table depth

(D - Table depth) R =

(11.53 - 10.00) × 1.54 = + 1.77

(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) *23.75*Standard Round of Beam = $\frac{B \times 12}{50} = 5.70$ Ship's Round of Beam = *6.00*Difference *30*

Restricted to

Correction = $\frac{\text{Diff} \times (1 - \frac{S}{L})}{4} = \frac{30}{4} \times 1.896 = -10.01$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)
enclosed ...					
overhang ...					
D. enclosed ...	<i>88.25</i>	<i>88.25</i>	<i>4.00</i>	-	<i>88.25</i>
overhang ...					
re enclosed ...	<i>9.00</i>	<i>9.00</i>	<i>7.00</i>	-	<i>9.00</i>
overhang aft ...					
overhang forward					
enclosed <i>squirt</i> ...	<i>22.73</i>	<i>22.73</i>	<i>7.00</i>	-	<i>22.73</i>
overhang ...	<i>3.17</i>	<i>1.58</i>			<i>1.58</i>
k aft ...					
forward ...					
age opening aft ...					
" forward					
Total ...	<i>123.15</i>	<i>121.56</i>			<i>121.56</i>

Standard Height of Superstructure *6.0*" " R.Q.D. *3.333*Deduction for complete superstructure *21*Percentage covered $\frac{S}{L} = 82.10$ " " $\frac{S_1}{L} = 81.04$ " " $\frac{E}{L} = 81.04$ Percentage from Table, Line A. *76.59*

(corrected for absence of fore-castle (if required))

Percentage from Table, Line B. *✓*

(corrected for absence of fore-castle (if required))

Interpolation for bridge less than 2L (if required) *✓*Deduction = $21 \times 76.59 = -16.08$

SHEER CORRECTION.

on	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
...	<i>25.00</i>	<i>1</i>		<i>25.00</i>	<i>27.00</i>	<i>25.00</i>	<i>1</i>		<i>25.00</i>
A.P. ...	<i>11.125</i>	<i>4</i>		<i>44.50</i>	<i>12.00</i>	<i>11.125</i>	<i>4</i>		<i>44.50</i>
...	<i>2.75</i>	<i>2</i>		<i>5.50</i>	<i>3.30</i>	<i>2.75</i>	<i>2</i>		<i>5.50</i>
...	-	<i>4</i>		-	-	-	<i>4</i>		-
P.P. ...	<i>5.50</i>	<i>2</i>		<i>11.00</i>	<i>3.50</i>	<i>3.50</i>	<i>2</i>		<i>7.00</i>
...	<i>22.25</i>	<i>4</i>		<i>89.00</i>	<i>20.00</i>	<i>20.00</i>	<i>4</i>		<i>80.00</i>
...	<i>50.00</i>	<i>1</i>		<i>50.00</i>	<i>51.50</i>	<i>51.50</i>	<i>1</i>		<i>51.50</i>
al ...				<i>225.00</i>					<i>213.50</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L} \right) = \frac{11.50}{18} \left(75 - \frac{4105}{3315} \right) = +.22$ limited on account of midship superstructure. *✓*If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. *✓**Excess height of raised quarter-deck above standard height not allowed in sheer aft as sheer forward is deficient.*Mean actual sheer aft = *Excess*Mean actual sheer forward = *Deficient*Length of enclosed superstructure forward of amidships = *> 1L*" " aft of " = *> 1L*on for Tropical Freeboard.
on for Winter and Winter North
tic Freeboard.Depth to Freeboard Deck = *15.53*
Summer freeboard = *4.17*
Moulded draught (d) = *11.36*on for Tropical freeboard and addition for
ter freeboard = $\frac{d}{4}$ inches = *2.84 = 2\frac{3}{4}*
for Winter North Atlantic Freeboard (if
required) = *4\frac{3}{4}*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$

Tons per inch immersion at summer load water line

 $T =$ Deduction = $\frac{\Delta}{40T}$ inches *$\frac{4}{4} = 2\frac{3}{4}$*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient *Nil.*

	+	-
Depth Correction ...	<i>1.77</i>	-
Deduction for superstructures ...	-	<i>16.08</i>
Sheer correction ...	<i>0.22</i>	-
Round of Beam correction <i>height raised quarter-deck</i> ...	-	<i>0.01</i>
Correction for Thickness of Deck amidships ...	<i>48.00</i>	-
Other corrections, scantlings, etc. ...	-	-
	<i>49.99</i>	<i>16.09</i>

*15.50**15.50*Summer Freeboard = *49.40*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Raised Quarter*, Steel Deck: -

Tropical Fresh Water Line above Centre of Disc ...	<i>2\frac{3}{4}</i>
Fresh Water Line " " ...	<i>2\frac{3}{4}</i>
Tropical Line " " ...	<i>Nil</i>
Winter Line below " " ...	<i>2\frac{3}{4}</i>
Winter North Atlantic Line " " ...	<i>4\frac{3}{4}</i>

Tropical Fresh Water Freeboard ...	<i>3'-11\frac{1}{4}" limited</i>
Fresh Water " " ...	<i>3'-11\frac{1}{4}"</i>
Tropical " " ...	<i>4'-2" limited</i>
Winter " " ...	<i>4'-4\frac{3}{4}"</i>
Winter North Atlantic " " ...	<i>4'-6\frac{3}{4}"</i>

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	No. 1		No. 2						
Dimensions of Hatchway	23'-4" x 13'-0"		28'-3" x 13'-0"						
COAMINGS	Height above Deck	30"	30"						
	Thickness	44	44						
	Sides	40	40						
	Ends	40	40						
	Stiffeners	7 x 3 x 4 8A	7 x 3 x 4 8A						
	Brackets, Stays	?	?						
HATCH BEAMS	Number	2	2						
	Spacing	7'-9 1/4"	9'-5"						
	Scantling and Sketch								
	Bearing Surface	?	?						
FORE AND AFTERS	Number	3	3						
	Spacing	3'-3"	3'-3"						
	Unsupported Lengths	7'-9 1/4"	9'-5"						
	Scantling* and Sketch								
	Bearing Surface	?	?						
HATCH COVERS	Material	W.P.	W.P.						
	Thickness	2 1/2"	2 1/2"						
	How fitted	athwartship	athwartship						
	Bearing Surface	?	?						
Spacing of Cleats	2	2							
Number of Tarpaulins	2	2							
<p>*Are wood fore and afters steel shod at all bearing surfaces? ?</p> <p>Are battens and wedges efficient and in good condition? 2</p> <p>Are tarpaulins in good condition and in accordance with rule requirements? ?</p> <p>Are lashings provided in accordance with rule requirements? 2</p>									

Particulars of fiddle, funnel and ventilator coamings :—

Particulars of Flush Bunker Scuttles :—

Particulars of Companionways :—

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

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

Particulars of Gangway Cargo and Coaling Ports :—

Particulars of Scuppers and Sanitary Discharge Pipes:—

?

Particulars of Side Scuttles:—

?

Particulars of Guard Rails:—

?

Particulars of Gangways, Lifelines, etc.:—

?

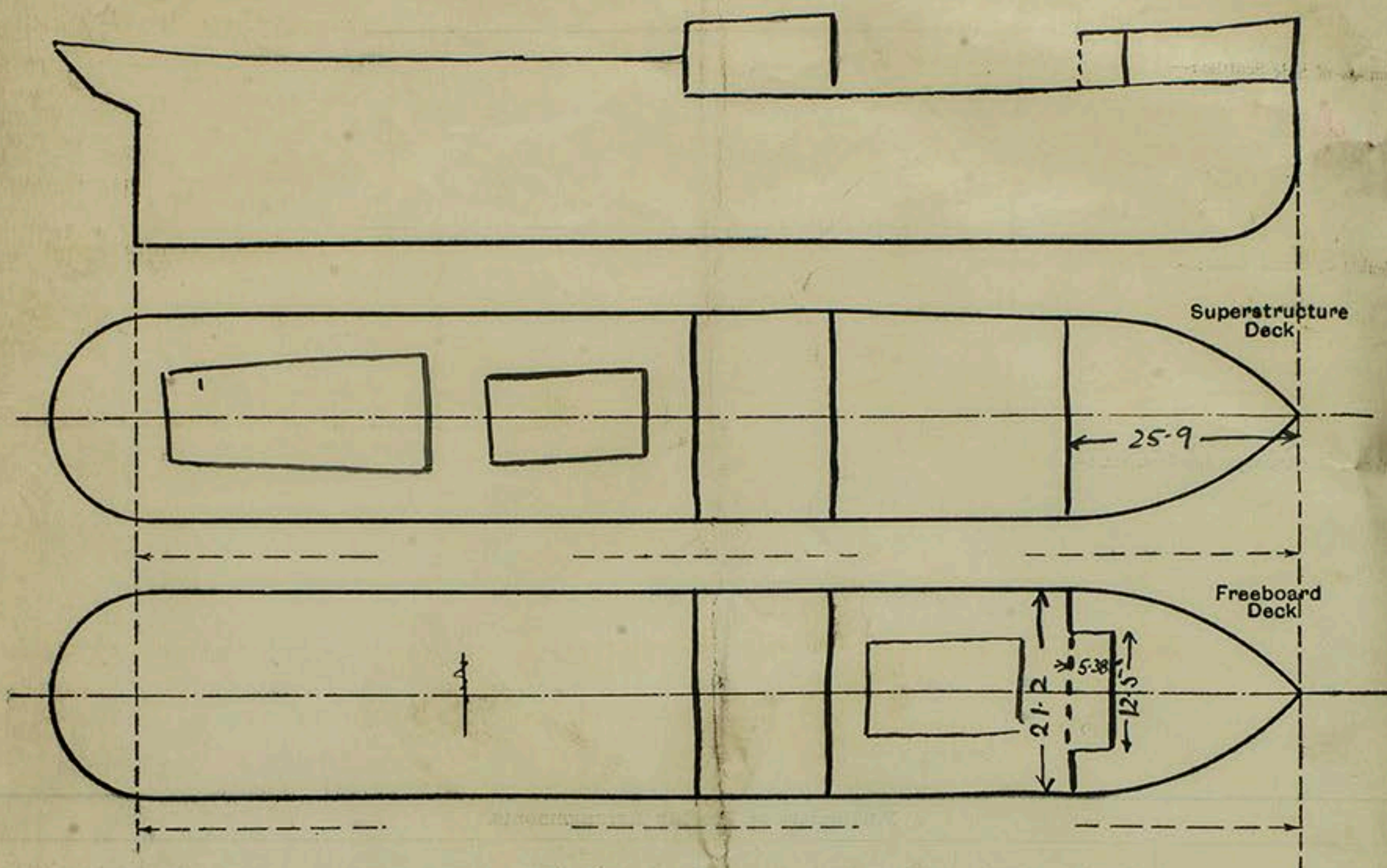
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	88.25	3.0	?	2		
Forward Well	26.85	4.0	2.5 x 1.41	3		
State position of each freeing port } After Well:— (F. and A. position and height 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	28	24	5 x 2½ x 40 BA	30"	brackets each end	None	—	—
Forecastle Bulkhead	?	?	?	?	?	?	?	
Trunk, Aft	—							
Trunk, Forward	—							
Exposed Machinery Casings on Free-board 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	—
Raised Quarter Deck Bulkhead ...	No opening
Bridge, After Bulkhead	No opening
Bridge, Forward Bulkhead	No opening
Forecastle Bulkhead	?
Exposed Machinery Casings on Free-board 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 ...	—



Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo 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:—

File
Recm $\frac{5.38 \times 12.5}{21.2} = \frac{25.90}{22.73}$ equivalent
 22.73 *equivalent*
removed.

Builder's name and yard number

Cammell Laird & Co. Ltd. Yard No. 882

Names of sister ships

Owners

Fee £

Received by me