

*Highland 32227*  
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 Rpt. 118  
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*Low Juss.*  
 15/7/32

12 APR 1929

3236

# Lloyd's Register of British & Foreign Shipping.

## SURVEYS FOR FREEBOARD.—STEAM SHIPS. 10,146

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 *Belfast*  
 Date of Survey *Building*  
 Name of Surveyor *Gas. L. Rennie*

Ship's Name <i>T.S.M.S. "HIGHLAND BRIGADE"</i>	Port of Registry and Nationality <i>Belfast</i> <i>British</i>	Official Number <i>148164</i>	Gross Tonnage	Date of Build <i>1929</i>	Particulars of Classification <i>±100A1 with freeboard (contemplated)</i>
Number in Register Book					

Registered dimensions from Ship's Register.	LENGTH.	BREADTH.	DEPTH.	UNDER DECK TONNAGE.
	<i>523.4</i>	<i>69.4</i>	<i>37.15</i>	<i>11604.89</i>
Length on LOADLINE.	<i>520.0</i>	Frame Depth Rule <i>7</i>	Ceiling fitted. Sheer <i>+0.32</i>	Peak Tanks } Included. Raised O.B. in Machinery Space <i>+89/100</i> for lumin. stem <i>-97/100</i>
CORRECTED DIMENSIONS.	<i>520.0</i>	<i>69.4</i>	<i>40.28</i>	<i>11596.89</i>

Moulded Depth as measured... *43'-9"*  
 Rule wood etc less stringer *3/4"*  
 Actual " " " " *2 1/2"*  
 $1. - 1$   
 $43'-8" \text{ true}$

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>520.0</i>
Length in Table .....	<i>524.0</i>
Difference .....	<i>4.0</i>
Correction for 10ft., Table A. ....	<i>1.7</i>
Table C. ....	<i>.8</i>
× Difference divided by 10 .....	<i>.68</i> (if required.)
If 1/10ths length covered divide by 2	<i>-3/4</i>

### CORRECTION FOR IRON DECK.

Proportion covered, if less than 1/10ths length covered ..... *In reduced med depth*  
 Thickness of usual wood deck, less stringer ..... *3/4"*  
*2 1/2" wood sheathing on Bridge Deck 1/2" Asphalt where exposed*

### CORRECTION FOR ROUND OF BEAM.

Breadth at Gunwale amidships.....	<i>69'-0"</i>
Round of Beam .....	<i>6"</i>
Normal round.....	<i>17 1/2"</i>
Difference .....	$11 1/2 \div 2 = 5 3/4$
Proportion of Deck uncovered (Para. 19) .....	$.619 \div 2 = 3 1/4$

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

Co-efficient of fineness..... *.798*  
 Any modification necessary } *C.O.B.*  
 [Para. 4 (a) to (e)]\* }  
 Co-efficient as corrected ..... *.78*

Sheer { Stem..... *110"* }  $155.0 \div 2 = 77.5$  ... Mean *36/11.63*  
 at { Sternpost ... *45"* } *.32*  
*1/2 gradual - 42.73*  
 Sheer at 1/2 of the length from { Stem *57.5* }  $80.23 - 40.12$   
 Sternpost *28.5* }  $81.0 \div 2 = 40.5$  ... Mean  
 $\div 55 = 73.63$   
 Gradual mean Sheer ..... *73.63*  
 Standard mean Sheer [Table, Para. 18] .....  $42.00 + 44.45$  Correction  
 Difference.....  $11.63 \div 4 = 2.91$   
 $4.33$   
 § If limited as Para. 18 (f).....  $-3$   
 $+1$

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

Fall in Sheer }  $\div 2 =$   
 Para. 18 (d) }  
 Length uncovered ..... Correction

ALLOWANCE FOR DECK ERECTIONS:—

Freeboard, Table C.....	$(12'-10 3/4" - 3'-3")$	<i>9'-7 3/4"</i>
Correction for Length, if required (Para. 13, 14, 15) .....		<i>- 1/4"</i>
Freeboard by Table A, corrected for sheer, and for length, if required (Para. 13, and 14) .....		<i>12'-7 1/4"</i>
Difference .....		$3 - 2 1/2 = 1 1/2$
Percentage as below.....		<i>17.62</i> $21.59$ <i>6.78</i> $7.63$
Correction for R. Q. Dk. if engine and boiler openings not covered by bridge house (Para. 11) .....		<i>6 3/4</i> $7 3/4$
Allowance for Deck Erections .....		<i>6 3/4</i> $7 3/4$

	Length.	Length allowed.	Height.
Forecastle.....	<i>101.0</i>	<i>96.20</i>	<i>8.0</i>
Bridge House .....	<i>97.0</i>	<i>85.84</i> $118.5$	<i>8.5</i>
† Raised Qr. Dk.....			
Poop.....			
Total .....	<i>198.0</i>	<i>182.08</i> $144.7$	<i>.350</i>
Length of Ship .....	<i>520.0</i>	<i>520.00</i>	<i>.278</i>
Corresponding percentage (Para. 13, 14, 15) .....		<i>17.62</i> <i>21.59</i>	

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

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

Freeboard, Table A .....	<i>12'-10 3/4"</i>
Correction for Sheer .....	<i>-2 1/4"</i>
Correction for Length .....	<i>12'-7 3/4"</i> $11 3/4$
Allowance for Deck Erections .....	<i>-0 3/4"</i>
Correction for Round of Beam.....	<i>12'-7 1/4"</i>
Correction for fall in Sheer (if any).....	<i>-7 3/4"</i> $6 3/4$
Correction for Deck (if required) where exposed.....	<i>11'-4 1/4"</i> $12 - 4/4$
Other Corrections (if any) for scantlings and to correspond to approved moulded and subdivision draught of 28'-0" for all seasons	<i>+3 1/2"</i> $4 1/4$
Winter Freeboard .....	<i>16'-0"</i>
Summer Freeboard .....	<i>16'-0"</i>
Indian Summer Freeboard .....	<i>16'-0"</i>
N. A. Winter Freeboard .....	<i>16'-0"</i>
Correction necessary because clearside amidships, measured in accordance with the Statute is not taken at the intersection of the wood ( ) deck with side.	<i>+ 1/2"</i>

Winter Freeboard from deck line .....	
Summer " " " " .....	<i>16'-0 1/2"</i>
Indian Summer " " " " .....	
N. A. Winter " " " " .....	
Wood ( ) Deck:—	<i>16'-0 1/2"</i> for all seasons.

† If the frames, skin planking, or ceiling are of unusual thickness the breadth of vessel to inside of ceiling should be reported if possible.  
 † In vessels obtaining an allowance for deck erections under Para. 11 where the sheer drops about amidships the height of the R.Q.D. is to be taken from the level of the top of the amidship beam.  
 † In flush-decked vessels the total standard mean sheer means the sheer measured at the stem and sternpost. In vessels having poops and forecastles, it means the sheer measured at points distant one eighth of the vessel's length from stem and sternpost.

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

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 RECEIVED I.P.T.O.  
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Do all the Frames extend to the top height in the Poop?  Raised Quarter Deck?  Bridge House? *Yes* Forecastle? *Yes*

To what height do the Reverse Frames extend? *Channel & Bulk Angle frames*

Has the Poop or Raised Quarter Deck an efficient Iron Bulkhead at the fore end?

Give particulars of the means for closing the openings in Bulkhead

Is the Poop or Raised Quarter Deck connected with the Bridge House?  *on Superstructure Deck*

Give particulars of the means for closing the openings in Bulkhead  *Open alleyway at starboard side.*

What is the thickness of the Bridge Front plating? *.40* and Coaming plate? *.44*

Give scantlings and spacing of the Stiffeners *9 1/2" x 3" x .50 Bulk angles spaced 30" & 3 webs 30" x .40*

Are bracket plates fitted at each end of the Stiffeners? *Yes* Are hor'l. brackets fitted connecting Bridge Bulk'd. with Bulwarks? *No*

Has the Bridge House an efficient Iron Bulkhead at the after end? *Yes. with open alleyway.*

How are the openings closed? *Slide Doors open alleyway*

Is the Forecastle at least as high as the main or top-gallant rail? *Yes* Has the Forecastle an efficient Iron 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?

Give thickness of plating; scantlings and spacing of Stiffeners

What is the height of the exposed Casings?  Are suitable means provided for closing all openings in them in bad weather?

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.	No. 1. 22'-6" x 16'-0" on Forecastle Deck		No. 2. 24'-9" x 16'-0"		No. 3. 24'-9" x 16'-0"		No. 4. 5. 20'-3" x 16'-0"		No. 6. 20'-3" x 16'-0"	
	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.
COAMING.	Height above top of DECK	21"	24"	18"	18"	18"	18"	18"	18"	18"
	Thickness	Sides	.44	.44	.44	.44	.44	.44	.44	.44
		Ends	.44	.44	.44	.44	.44	.44	.44	.44
SHIFTING BEAMS OR WEB PLATES.	Number	5	5	5	2	2	2	2	2	
	Section and Scantlings	12" x 5" x 39 lbs I	2 webs 31" x .50 3 beams 12" x 5" x 39 lbs	2 webs 31" x .50 3 beams 12" x 5" x 39 lbs	2 webs 31" x .50	2 webs 31" x .50	2 webs 31" x .50	2 webs 31" x .50	2 webs 31" x .50	
	Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel	
* FORE AND AFTERS.	Number									
	Section and Scantlings	None	None	None	None	None	None	None	None	
	Material									
HATCHES	Thickness	3"	3"	3"	3"	3"	3"	3"	3"	
Remarks	Good.									

\* 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.)

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 not satisfactory. }

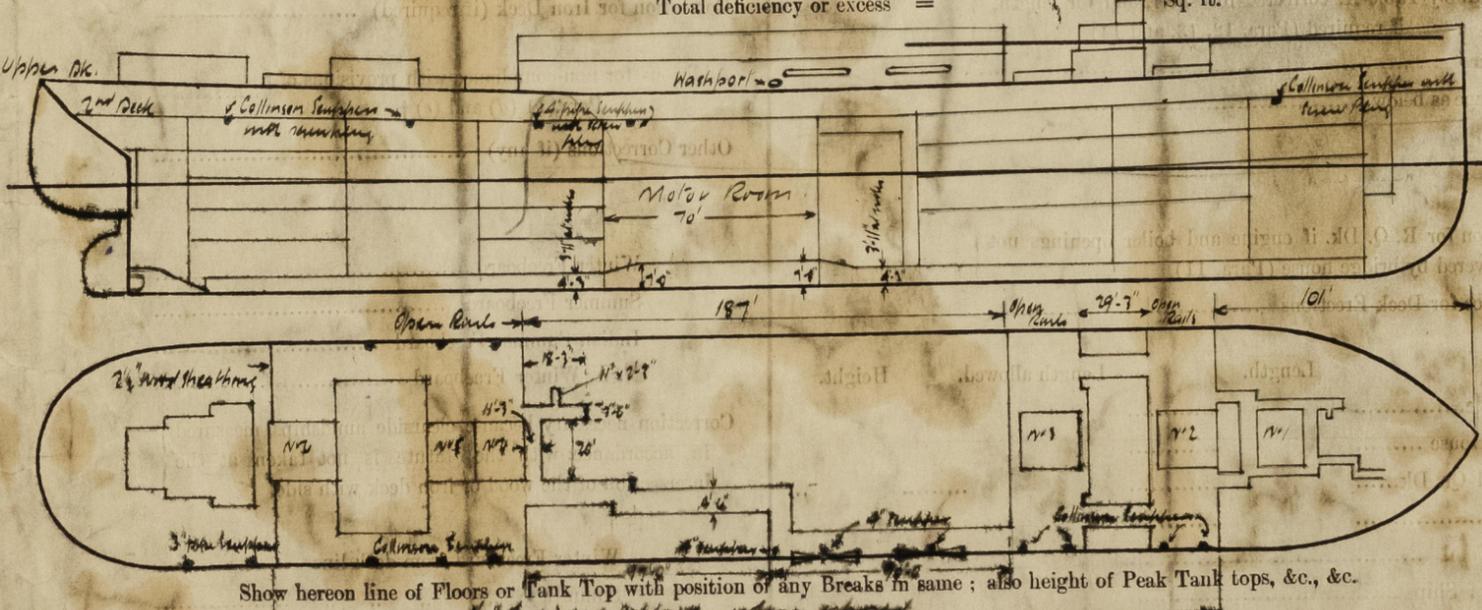
Length of Bulwarks in well *Open rails. 90'0" Bulwarks on starboard side of Bridge.*

Area of Freeing Ports required by Para. 11 (e) each side of vessel = *1.75* Sq. ft.

Ft. Tenths. *1.75* Ft. Tenths. *1.00* No. *1*

Freeing Ports *1.75* Sq. ft. (each side of vessel)

Total deficiency or excess = *0* 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 *(This vessel 7800 G. Highland Christian) this vessel has a complete superstructure without lounge opening with long bridge & forecastle above. All scuppers & discharges from 2nd deck are wrought iron pipes with brass down valves on ship's side discharging 2'0" & 2'0" above baseline except on stern above. A mid-section load line of 26'0" moulded has been assigned by the Board of Trade. See letter 4/7/28*