

STEEL STEAMER or MOTORSHIP.

Received at London Office 23 MAY 1932

State if Report has been sent on the Freeboard of the Vessel. Yes

State if Report is sent on the Machinery of the Vessel. Yes

Date of completion of report

20th May 1932 Port of Belfast

No. 10,850

Survey held at Belfast

Date First Survey 19th January 1931 Last Survey 12th May 1932

On the (State if Machinery fitted Aft and if Single, Twin or Triple Screw) Twin Screw "HIGHLAND PATRIOT"

State Type (Full Scantling, Complete Superstructure with or without Tonnage Openings) Complete Superstructure without Tonnage openings State Type of Erections Bridge + Forecastle.

TONNAGE under 11604.89
Tonnage Deck...)

CLASS 100 A 1

State if with freeboard as condition of Class

Yes

Built at Belfast

Launched 10th December 1931 Yard No. 916

Do. of space or spaces between Tonnage Dk. and Upper Dk.

Length from fore part of stem to after part of stern post on summer L.W.L. See Sec. 3 (1a)

L 520

Breadth (greatest moulded)

B 69

Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c)

D 43.75

Builders Harland & Wolff Ltd.

Owners Nelson Steam Navigation Co. Ltd.

Total

11604.89

Gross Tonnage

14156.59

Register Tonnage

8742.60

1st Longitudinal Number (L x D) = 21752

2nd Numeral L x (B + D) = 57632

Managers H. & W. Nelson Ltd.

(Where necessary to be entered in Reg. Book.)

Residence London

REGISTERED DIMENSIONS.

FEET.

Length 523.4

Breadth 69.4

Depth 37.15

Framing Depth "d," at middle of length. See Sec. 3 (1d)

8.25

Proportions—Depth to Length—Uppermost continuous deck to top of keel

11.89

Do. Long Bridge to top of keel

9.95

Draught Moulded

28'-7"

Yes

FRAMES, DOUBLE BOTTOM AND BEAMS.

	INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
FRAMES, Spacing amidships	27		Bracket Floors, Frame	7 1/2 3 1/2 44	
" " from 1/2 length to Collision bulkhead	27		" " Reversed Frame	7 1/2 3 1/2 38	
" " in peaks	24		" " Vertical Struts	7 1/2 3 44	
FRAME FRAMING. In Engine Space	7 x 34 x 3 1/2 x 3 1/2 x 50 Up + Bdg Dks. alt. +		Centre Girder, depth and thickness amidships	51 65	
Frame Amidships, Angle, [F] Holds	7 x 48 x 3 1/2 x 3 1/2 x 50		" " top Angles	3 1/2 3 1/2 59	
" " Extends up to	Up + 2 nd Dks. alternately in way of bridge.		" " bottom Angles	5 5 67	
Reversed Frame Amidships, Angle	4 3 36 Appd. 3 x 3 x 36		Side Girders, No. each side and thickness	3 { 2 @ 42 1 @ 48 to 42	
" " Extends up to	Side stringer		Margin Plate depth (excl. of flange) and thickness	58	
Depth of Framing Girder	7		" " Vertical Angles to Tank side Bracket abaft 1/2 len. from stem	3 1/2 6 49	
Frames in Uppermost Continuous 'tween	7 x 34 x 3 1/2 x 3 1/2 x 50 at 27		" " Vertical Angles to Tank side Bracket forward 1/2 len. from stem	6 6 49 double	
Decks, Angle, [F] or [F]	7 x 34 x 3 1/2 x 3 1/2 x 50 at 27		" " Gussets, spacing and scantling abaft 1/2 len. from stem		
Second 'tween Decks, Angle	7 x 48 x 3 1/2 x 3 1/2 x 50 at 27		" " Gussets, spacing and scantling forward 1/2 len. from stem		
" " Third	7 x 48 x 3 1/2 x 3 1/2 x 50 at 27		Tank Side Brackets, height above base line at toe of Frame and thickness	31 48	
Framing in Peaks, Angle	8 1/2 3 1/2 50		INNER BOTTOM PLATING.		
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	1" + 7/8" 6" + 5/8" clear of insulation 1" + 7/8" 3 1/2" + 4 1/4" in way of -dks-		Breadth and thickness of Middle Line Strake	59 59 to 51	
State if Frame Joggled	Amidships only.		Thickness of remainder in Holds	48 to 44	
STRENGTHENING ARRANGEMENTS (Sec. 7), state system and particulars	Deep frame [8" x 50 x 3 1/2 x 3 1/2 x 52 with 4 x 3 1/2 x 50 rev. angles. 2 side stringers 1 1/2 x 4 1/4 plate 6 1/2 3 1/2 46 face angle. Additional 1/2 ht. intercostals. 3 strakes shell increased double bottom frames existing to Rule.		Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. 1 st space and framing in Bunkers and Boiler Room?	As approved	
STRENGTHENING OF BOTTOM FORWARD. State Particulars			BEAMS.		
DOUBLE BOTTOM.			Uppermost Continuous Deck, amidships	8 x 39 x 3 1/2 x 3 1/2 x 52	
Floors, Depth and thickness at mid line in Holds			" " in way of Bridge, Angle, [F]	8 x 30 x 3 x 3 x 40	
Height of Brackets at side above base line at toe of frame			Spacing	27	
Middle Line Keelson, on Floors, Angles, [F] or [F]			Second Deck, amidships, Angle, [F]	8 x 30 x 3 1/2 x 3 1/2 x 52	
" " Through Plate or Intercostal Plate			Spacing	27	
" " Foundation Plate on Floors			Third Deck, amidships, Angle, [F]	As 2 nd deck	
" " Flat Plate Keel Angles			Spacing	27	
Side Keelsons, No. each side			Fourth Deck, amidships, Angle, [F]	8 x 30 x 3 1/2 x 3 1/2 x 52	
" thickness of Intercostal Plate			Spacing	27	
" Angles			5th Deck, Angle, [F]	As 4 th deck	
DOUBLE BOTTOM.			Spacing	27	
Solid Floors, thickness and spacing	42 81		Bridge Deck, Angle, [F]	8 x 30 x 3 x 3 x 44	
" Are Frame and Reversed Frame joggled?	Frame - yes Rev. frame - no		Spacing	27	
Bracket Floors, breadth and thickness at middle line	36 4 42		Forecastle Deck, Angle, [F]	8 x 30 x 3 1/2 x 3 1/2 x 52	
" breadth and thickness at margin plate	52 42		Spacing	27 + 24	

PILLARS AND DECKS.

	INCHES IN SHIP.			Any Departure from Approved Plans to be Noted.
PILLARS, No. of Rows.	Three			
<i>In way of Bridge</i>	3 1/8, 3 5/8, 4 1/2, 5, 5 3/8 diam.			
" in 'tween Decks, Size and Spacing	spaced 6'-9"			
<i>clear of Bridge</i>	3 1/8, 3 5/8, 4 1/2, 5			
" " " "	spaced 6'-9"			
" in Holds <i>in way of Bridge</i>	5 3/4	6'-9"		
" " <i>clear of Bridge</i>	5 3/8	6'-9"		
Centre Line Bulkhead.				
Stiffeners and Spacing		✓		
Plating, thickness of		✓		
STRINGERS AND DECKS.				
Uppermost Continuous Deck.				
Stringer Plate, breadth and thickness in Wells	74	·88		
" " " " in way of Bridge	74	·48		
" Angle in Wells	6	6	·88	
Thickness of Plating abreast Deck openings in way of Wells	·60	to	·56	
Thickness of Plating abreast Deck openings in way of Bridge		44		
Thickness of Plating within line of openings		·36	in bridge	
If Sheathed, material and thickness		2 1/2" P.Pine aft in accommodation 1 1/4" asphalt where exposed		
Second Deck.				
Stringer Plate, breadth and thickness in Wells	70	·48 to	·44	
Stringer Plate, breadth and thickness in way of Bridge		·44	to	·40
Thickness of Plating abreast Deck openings in way of Bridge		·40		
Thickness of Plating within line of openings		·36	to	·34
If Sheathed, material and thickness		2 1/2" P.Pine in accommodation 1 1/4" asphalt in emigrants space		
Third Deck.				
Stringer Plate, breadth and thickness		·34	in Bridge	
If Plated, state thickness		·38 to	·34	
		·30	in Bridge	
Fourth Deck.				
Stringer Plate, breadth and thickness		70 x ·34 to	41 x ·34	
If Plated, state thickness		·30		
5th Deck.				
Poop Deck.				
Stringer Plate, breadth and thickness		As		
Plating, Sheathing, material and thickness		4th deck		
Bridge Deck.				
Stringer Plate, breadth and thickness		74 x ·56 to	74 x ·82	starb'd. abreast open sides
Plating, Sheathing, material and thickness		·48 + ·46	2 1/2" P.Pine	
Forecastle Deck.				
Stringer Plate, breadth and thickness		64	·42	
Plating, Sheathing, material and thickness		·38	5 x 2 1/2" P.Pine. 10 x 4 teak under windless Asphalt under winches.	

SHELL PLATING.

SCANTLINGS.					RIVETING.								
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES. State if jogged? No.			BUTTS.				
	AMIDSHIPS.		FORWARD.	AFT.		SINGLE OR DOUBLE.	RIVETS.		NO. OF ROWS OF RIVETS.	RIVETS.		STRAPPED OR LAPPED.	
	Breadth.	Thickness.	Thickness.	Thickness.			Diam.	Spacing cr. to cr.		Diam.	Spacing cr. to cr.		
	Inches.	Inches.	Inches.	Inches.			Inches.	Inches.		Inches.	Inches.		
FLAT PLATE KEEL	62	1.21	.94	.94	77	Double	1 1/4	4 1/2	5	1 1/4	5 1/2	lapped	
In way of duct keel " base (if any)	62	1.21	1.21	✓		-do-	1 1/4	4 1/2	5	1 1/4	5 1/2	-do-	
BOTTOM PLATING, No. of Strakes 5	72 1/2 72 72 1/2 78	70	.78 .70 .56 .68 .56	.58 .62 2 @ .64 .62		-do-	7/8	3 3/8	4	7/8	3 1/2	-do-	
BILGE PLATING, No. of Strakes 1	70 1/2	70	.64	.64		-do-	-do-	-do-	-do-	-do-	-do-	-do-	
SIDE PLATING, No. of Strakes 5	69 1/2 72 1/2 67 1/2	70	.56 4 @ .52	.60 2 @ .56 2 @ .52		-do-	-do-	-do-	-do-	-do-	-do-	-do-	
UPPER DECK, Sheer- strake in Wells.....	80	✓	1.0 to .52	1.0 to .52		Double	1 1/4 to 7/8	3 3/4 to 3 3/8	5 to 4	1 3/8 to 7/8	5 to 3 1/2	-do-	
UPPER DECK, Sheer- strake in Bridge ...	80	70	✓	✓		Double	7/8	3 3/8	4	7/8	3 1/2	-do-	
STRAKE BELOW SHEER- strake in Wells.....	77 1/2	✓	.80 to .52	.80 to .52		-do-	1 1/4 to 7/8	3 3/4 to 3 3/8	4	1 1/4 to 7/8	4 to 3 1/2	-do-	
STRAKE BELOW SHEER- strake in Bridge ...	77 1/2	70	✓	✓		-do-	7/8	3 3/8	4	7/8	3 1/2	-do-	
POOP SIDE PLATING	✓												
BRIDGE SIDE PLATING ...	47 60	64 to .68	.88	Standard abreast open side.		Double	1 1/4 to 7/8	3 3/4 to 3 3/8	5 to 4	1 1/4 to 7/8	4 1/2 to 4	lapped	
FORECASTLE SIDE PLATING	✓	✓	.46	✓		-do-	3/4	3	3	3/4	2 5/8	-do-	

WATERTIGHT BULKHEADS.

FORGINGS and CASTINGS.

Total No. of W.T. BULKHEADS in Vessel—							Casting or Forging.	Scantlings.	Maker's Name.	Any departure from approved plans to be noted.
Extending to Upper Deck (Sec. 3 c) <i>One</i> ✓										
" Deck next below <i>Eight</i> ✓										
As per Rule <i>Eight</i> ✓										
		Plating Thickness.	STIFFENERS.				Casting or Forging.	Scantlings.	Maker's Name.	Any departure from approved plans to be noted.
			VERTICAL.		HORIZONTAL.					
			Scantlings.	Spacing.	Scantlings.	Spacing.				
MIDSHIP BULKHEAD	<i>2nd</i> Upper between decks (19 ft. F)	26" 27"	4" x 2½" x 38"	29" x 20"	✓	✓				
"	<i>3rd</i> Second "	27" to 32"	5" x 2½" x 46"	-do-	✓	✓				
"	<i>4th</i> Third "	32" 34"	6" x 3" x 46"	-do-	✓	✓				
"	Holds	34" to 42"	7" x 3" x 44"	-do-	✓	✓				
COLLISION	(in Hold)	36" to 48"	8" x 3" x 40"	24"	S.B. Beam. W.T. Flat ✓	✓				
AFTER PEAK	"	30" to 60"	7" x 3" x 42"	26" + 24"	W.T. Flat + 4th Deck ✓	✓				
KEEL, Bar							Upper part Rolled Forefoot Casting	11" x 2¾"	D. Colville & Sons Ltd. Glasgow Shipyard	
STEM								Open section		
STERN FRAME							Propeller Post Rudder "	Open section	Beardmore, Glasgow.	
RUDDER—A x D									Semi-balanced type	
Speed of Vessel									15.9 knots.	
RUDDER mainpiece at head								Stock 16½"	Mainpiece 20"	
" " heel								12"		
" how constructed									Forged and built.	
" double or single plate coupling, vertical or horizontal									Single plate Horizontal.	

STEEL.

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture) *Open hearth process.*
Colvilles Ltd. Glasgow; Pease & Partners Ltd. Skinningrove; Shelton Iron Steel & Coal Co. Ltd. Stoke-on-Trent;
So. Durham Steel & Iron Co. Ltd.; Lancashire Steel Co. Ltd.; Consett Iron Co. Ltd.
 Has the Steel been tested as required by the Rules? *Yes.*

EQUIPMENT No. 63525										LETTER 4	ANCHORS.				
Number of Certificate.	Anchors.	WEIGHT, EX. STOCK			WEIGHT OF STOCK			TEST, PER CERTIFICATE.				WEIGHT REQUIRED BY TABLE 63.	Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.	Cwts.			
18723	1st Bower ...	105	1	26	Stockless			69	10	-	-	99 3/4	Britannic type	Sykes & Sons Ltd	Cardiff 6/11/31
18727	2nd " ...	105	0	25	- do -			69	10	-	-	99 3/4	6. S. Head and	Bradley	- do - 9/11/31 - do -
18722	3rd " ...	104	3	-	- do -			69	2	2	-	99 3/4	Forged W.I. Shank.	Heath	- do - 29/10/31 - do -
	Collective weight.	315	1	23								298			
18724	Stream	31	-	-	8	-	7	29	7	2	-	31	Iron stock ordinary	- do -	- do - 6/11/31 - do -

CHAIN CABLES.										HAWSERS AND WARPS.									
Number of Certificate.	Length and size supplied.		Test per Certificate.		WEIGHT OF CHAIN CABLE.				Length and Size per Table 53.		Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Length and Size supplied.		Breaking Test of Steel Wire.	Length and Size per Table 53.	
	Length.	Diam.	Statu-tory.	Break-ing.	Supplied.		Per Rule.		Length.	Diam.					Length.	Cir.		Length.	Cir.
35171	Fathoms.	Ins.	Tons.	Tons.	Cwts.	qrs.	lbs.	Cwts.	Fathoms.	Ins.	Steel link	Sykes & Sons. Ltd. Bradley Heath	Cardiff 17. 11. 31 L. L. W. right.	TOWLINE...	Fathoms.	Ins.	Tons.	Fathoms.	Ins.
	330	2 13/16	133 10/100	186 3/4	1319	2	19	1317	0	0	330	2 7/16				2@130	5"	70 9/10	130
- do -	2 end joining } shackles 2 special end }				4. 3. 21 3. 0. 26 4. 2. 21						- do -	- do -		HAWSERS & WARPS	2@90	3"	18 6/10	4@120	2 3/4
		Cir.								Cir.		Arch. Thomson Black Stb. Ltd. Glasgow	Makers.	"	2@90	3 1/4"	21 7/10		
Stream Cable Steel Wire	120	6	✓	99 1/10	✓			✓	120	5 1/2	✓			"					

Steering Gear, ~~Steam~~ Harland & Wolff Electric - hydraulic. Steering Gear, Hand ✓

Boats 14 lifeboats Steering Chains, Size and Test ✓ Windlass J.H. Wilson & Co. Electrical

Ceiling in Holds, thickness and material Insulated Cargo Battens, thickness, material and spacing Upper Tw. Decks aft. 6" x 2 W.P.

Cargo Hatchways.-(Upper Deck) Of steel plates and angles Thickness of Hatches 3" also extra grating hatches 3" to Nos. 3, 4 & 5, 16 hatchways

Size of No. 1 Hatchway (Forward) 22'-6" x 16' No. 2 24'-9" x 16' No. 3 24'-9" x 16' No. 4 20'-3" x 16' No. 5 20'-3" x 16' No. 6 20'-3" x 16'

Number of Shifting Beams and/or Fore and Afters 5 in each of Nos. 1, 2, & 3 hatchways. 2 in each of Nos. 4, 5, & 6 hatchways.

For HARLAND AND WOLFF, LIMITED

Builder's Signature *Chas. Taylor*

GENERAL DECLARATION. It should be stated (a) whether the vessel is fitted for the carriage and burning of oil used as fuel ^{Oil engines + oil fired W.H. boiler (vertical)} (b) whether the vessel, not being an oil tanker, is fitted for carrying oil as cargo No The positions in which oil is carried as fuel or cargo should be indicated, together with the flash point.

This vessel has been built in accordance with the approved plans, the Secretary's letters of various dates and in general conformity with the Rules. The workmanship and materials are good. The double bottom tanks, peak tanks, oil fuel bunkers and cofferdams have been tested as required by the Rules with satisfactory results and the weather decks and W.T. bulkheads satisfactorily hose tested. The steering gear windlass, bilge pumps, hand pump and W.T. doors have been satisfactorily tried. The freeboard has been verified and cut in on the vessel's sides. The vessel is intended for the carriage of frozen meat in all holds and tween decks below the 2nd deck, and for frozen meat or fruit in Nos. 2 & 3 upper tween decks. Oil fuel, flash point above 150° F is carried in bunkers formed by deep tanks forward of the machinery space, and in the double bottom under these tanks.

The amount of Entry Fee £ 12 : - : - Fees applied for, 21st May 1932

Special Survey Fee.... £ 501 : 19 : 3 Received by me, 26/5/1932

Freeboard Fee £ 20 : - : -

Travelling Expenses, if any £ : : :

I am of opinion the Vessel should be Classed + 100 A 1

"With Freeboard".

Fitted for Oil Fuel 5.32 F.P. above 150° F.

Duct keel fwd. of Mch. space.

Signature E.R. Edgar

Surveyor to Lloyd's Register of Shipping.

State whether the Vessel has been built under Special Survey Yes

Certificate to be sent to This office Date of issue

Committee's Minute/ TUE. 24 MAY 1932

Character assigned + 100A1

with freeboard

+ L. No. 5.32 C.L.

Oil Eng. 200 lb.

Lloyd's A & C.P.

Wrote X

W406-0127(212)

GENERAL REMARKS—(The Surveyor should state the Number of Report and Name of any Sister Vessel. Plans showing Vessel as built should be forwarded and a List of the Plans should be embodied.)

Sister vessels are Highland Monarch Belfast Report No. 10,047.
Highland Chieftain - do - 10,103.
Highland Brigade - do - 10,160
Highland Princess - do - 10,326.

The approved plans for the sister vessels forwarded with the Secretary's letters of 19. Jan. 1931 and 12th Feb. 1931, together with plans and specifications of insulation are returned herewith, together with 7 plans as follows for this vessel.

1. Alteration to double bottom in way of lubricating oil tank.
2. Teller
3. Pumping plan.
4. Oil tank depth recording gauges.
5. Non-return valve for draining top of insulation in insulated spaces.
6. Ship's side scaffolds and discharges.
7. Oil fuel filling, air and overflow pipe arrangement.

3 Casting reports, 2 forging reports (copy of special certificate) also copy of certificate of tests on 18 derrick are also forwarded herewith.

Particulars of Drop Test of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower	Cuts. 67	Qrs. -	lbs. 14	J.D.	7733	16. 6. 31
	2nd "	67	-	-	J.D.	7732	16. 6. 31.
	3rd "	65	3	-	J.D.	7734	15. 6. 31.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ☒ ft., R.Q.D. ☒ ft., Bridge 186.7' ^{186.7' port.} _{97' starboard.} Forecastle 101 ft.
(in feet and tenths). When the Poop is joined to the B.D., this should be distinctly stated ☒

No. and Material of Decks (This information is to be given as it should appear in the Register Book). 4 Decks (Stl. - U. pt. ASP. 5 pt WS) 5th Dr. (Stl.)
in Nos. 2, 3, 4 & 6 holds.

Official No. 161883 : Signal Letters LHPW
Is bottom of Vessel coated with cement ^{Yes except in Cofferdams, Duct if not give} _{hull + O.F. dble. botm.}
particulars of composition Cofferdams + Duct Keel painted, nothing in O.F. dble. bottom tanks.

PARTICULARS OF WATER BALLAST.—

Where Fitted.	*Length. Feet.	Water Capacity. Tons.	Where Fitted.	*Length. Feet.	Water Capacity. Tons.
Double bottom, aft,	140.5	594	Fore peak tank,	26	70
Double bottom, under Engines and Boilers	65.25	337	After peak tank,	20	234
Double bottom, under Engines only ^{Oil fuel overflow +}	67.50	108	Deep tank, aft,		
Double bottom, under Boilers only ^{tanks.}	31.5	238	Deep tank forward,	31.5	1737
Double bottom, forward,	190.75	756	Other tanks, if fitted,		
	Total capacity of double bottom	2033	(If necessary, furnish further information by sketch.)		

All capacities given are in tons salt water. *The wells are not to be included in the lengths of the tanks. Total length of double bottom including cofferdams 442.75'.

Order for Special Survey No. 829	1931 Jan 19. 23. 27 Feb 2. 9. 12. 17. 20. 25 Mar 2. 9. 12. 18. 25 Apr 1. 8. 9. 14. 17. 21. 23. 29 May 11
Date 3 rd Feb. 1931.	10. 11. 13. 14. 18. 21. 25. 27. 29 June 1. 3. 5. 9. 11. 12. 17. 23. 29. 30 July 1. 2. 6. 7. 10. 26. 30 Aug 6. 7. 10. 14. 21. 24. 25.
	26. 27. 28. 31 Sept. 1. 3. 4. 7. 8. 9. 10. 11. 14. 16. 17. 18. 21. 22. 24. 28. 29. 30 Oct 2. 5. 6. 7. 8. 12. 13. 14. 15. 19. 20. 21. 23. 26
	27. 28. 29 Nov 2. 3. 4. 5. 6. 9. 10. 11. 13. 16. 17. 19. 23. 25. Dec 1. 2. 3. 4. 8. 9. 10. 11. 15. 17. 18. 21. 23 Jan 5. 8. 12. 13. 14. 15
	18. 19. 20. 21. 22. 25. 26. 27 Feb 1. 8. 11. 19. 22. 23. 26 Mar 1. 3. 4. 9. 11. 14. 16. 18. 31
	Apr 7. 8. 11. 14. 19. 20. 21. 22. 25. 26. 28. 29 May 3. 5. 9. 11. 12
	Total No. of Visits 169