

STEEL STEAMER or MOTORSHIP.

Received at London Office...

W1133-0176 1/2 -3 SEP 1934

State if Report has been sent on the Freeboard of the Vessel YESState if Report is sent on the Machinery of the Vessel YES

Date of completion of report

31st August 1934 Port of

Belfast.

No. 11.351

Survey held at

Belfast

Date First Survey

30th June 1933

Last Survey

28th August

1934

On the

TWIN SC. M.S. "WAINERA"

State Type

(Full scantling, complete superstructure with or without Tonnage openings)

Complete Superstructure with Tonnage opening State Type of Erections 38 ft in shelter deck.

TONNAGE under Tonnage Deck

8818.09

CLASS

+100 A.I.

State if with freeboard as condition of Class

Built at

Belfast.

Launched

May 1st 1934

Yard No. 922

Builders

Messrs Harland & Wolff Ltd.

Owners

Messrs Shaw Savill & Albion Co Ltd.

Managers

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

Residence New Zealand Chambers.

Leadenhall St. E.C.3.

Port of Registry

Southampton

If surveyed while building, afloat, or in dry dock

Building, afloat and in Drydock.

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

908.92

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

L 515

Breadth (greatest moulded)

B 70

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' 4 1/2"

Total

9727.01

Gross Tonnage

10781.68

Tonnage

6542.38

REGISTERED DIMENSIONS. FEET.

516.2

70.4

32.4

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

19.46

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

11.87

Do. Long Bridge to top of keel

10.03

Draught Moulded

29' 5 1/2"

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.
Spacing amidships	34		Bracket Floors, Frame		
" from 1/3 length to Collision bulkhead	27		" " Reversed Frame		
" in peaks	24		" " Vertical Struts		
AMIDSHIPS.			Centre Girder, depth and thickness amidships	48 1/2 x .66	
Amidships, Angle, [or F	9 x 38 + 3 1/2 x 3 1/2 + 54		" " top Angles	3 1/2 x 3 1/2 x .62	
" Extends up to	upper Bridge deck		" " bottom Angles	5 x 5 x .70	
d Frame Amidships, Angle	4 3 1/2 36		Side Girders, No. each side and thickness	2 .48	
" Extends up to	Main Deck		Margin Plate depth (excl. of flange) and thickness	63 x .62	
in Bridge, Scarphed 15" to Main	4 3 1/2 40		" " Vertical Angle to Tank side	11.8	
of Framing Girder	9"		Bracket abaft 1/2 len. from stem	6 x 6 x .51	
in Uppermost Continuous 'tween			" " Vertical Angle to Tank side	6 x 6 x .51	
Decks, Angle, [or F			Bracket forward 1/2 len. from stem	3 1/2 x 3 1/2 x .51	
Second 'tween Decks, Angle, [or F			Gussets, spacing and scantling abaft 1/2 len. from stem	69 x .60	
Third " " " "			Gussets, spacing and scantling forward 1/2 len. from stem	18" x .52	
in Peaks, Angle, [or F	9 3 1/2 42 15 8 1/2 Deck		Tank Side Brackets, height above base line at toe of Frame and thickness	77" x .51	
er and Spacing of Rivets through Frame and Shell Plating amidships	7/8 6 dia 5 1/2 OF		INNER BOTTOM PLATING.		
Frame Joggled	Amidships only.		Breadth and thickness of Middle Line Strake	60 .60	
ARRANGEMENTS (Sec. 7). state system and particulars	Deep for with rev. angles 3 side stringers		Thickness of remainder in Holds	.52 - .48	
FINISHING OF BOTTOM FOR	additional 1/2 ft intercostals 3 strakes shell increased		Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. & B. space and framing in Bunkers and Boiler Room?	As approved.	
D. State Particulars	D.B. frames erecting to Rule		BEAMS.		
BOTTOM.			Uppermost Continuous Deck, amidships	9 x .52 + 3 1/2 x 3 1/2 + .52	
Depth and thickness at mid-line in Holds			" " in Wells, Angle, [or F	10 x .58 + 3 1/2 x 3 1/2 + .56 FWD.	
Height of Brackets at side above base line at toe of frame			" " in way of Bridge, Angle, [or F	10 x .38 + 3 1/2 x 3 1/2 + .56	
Line Keelson, on Floors, Angles, [or F			Spacing	11 x .56 + 3 1/2 x 3 1/2 + .575 BOW & F.E.	
" " Through Plate or Intercostal Plate			Second Deck, amidships, Angle, [or F	10 x .40 + 3 1/2 x 3 1/2 + .56	
" " Foundation Plate on Floors			Spacing	EV.	
" " Flat Plate Keel Angles			Third Deck, amidships, Angle, [or F	12 x .41 + 3 1/2 x 3 1/2 + .60	
sons, No. each side			Spacing	EV.	
thickness of Intercostal Plate			Fourth Deck, amidships, Angle, [or F	10 x .40 + 3 1/2 x 3 1/2 + .56	
Angles			Spacing	EV.	
BOTTOM.			Shell Deck, Angle, [or F	9 x .32 + 3 1/2 x 3 1/2 + .52	
Solid Floors, thickness and spacing	.48 EV.		Spacing	EV.	
" " Are Frame and Reversed Frame joggled?	Frame - yes. Rev fr - no.		Bridge Deck, Angle, [or F	8 x .56 + 3 1/2 x 3 1/2 + .52	
Bracket Floors, breadth and thickness at middle line			Spacing	EV.	
" " breadth and thickness at margin plate			Forecastle Deck, Angle, [or F	10 x .48 + 3 1/2 x 3 1/2 + .56	
			Spacing	act.	

PILLARS AND DECKS.

	INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
PILLARS, No. of Rows.....	2	✓	Stringer Plate, breadth and thickness in way of Bridge	59 + .42	app. 53"
„ in 'tween Decks, Size and Spacing....			Thickness of Plating abreast Deck openings in way of Wells .....	.44	✓
„ „ „ „ „	} wide spaced as per app. plans ✓		Thickness of Plating abreast Deck openings in way of Bridge .....	.38	✓
„ in Holds „ „			Thickness of Plating within line of openings...	.36 + .34	
„ „ „ „ „			If Sheathed, material and thickness	✓	
Centre Line Bulkhead.			Third Deck.		
Stiffeners and Spacing.....	✓		Stringer Plate, breadth and thickness.....	59 1/2 + .40	app. 53"
Plating, thickness of	✓		If Plated, state thickness.....	.36 + .34	
STRINGERS AND DECKS.			Fourth Deck. 2 1/2 24 for fwd.		
Uppermost Continuous Deck.			Stringer Plate, breadth and thickness.....	59 3/4 + .38	app. 53"
Stringer Plate, breadth and thickness in Wells	74 + .87 + .05	app. .87	If Plated, state thickness .....	.34	
„ „ „ „ in way of Bridge	53 + .48	✓	<i>Skellin</i> Peep Deck. app.		
„ Angle in Wells	6 + 6 + .87	✓	Stringer Plate, breadth and thickness	43 + .46	✓
Thickness of Plating abreast Deck openings in way of Wells .....	.63 + .05	app. .63	Plating, Sheathing, material and thickness ...	.38 not sl.	✓
Thickness of Plating abreast Deck openings in way of Bridge .....	.44	✓	Bridge Deck.		
Thickness of Plating within line of openings...	.46 + .44		Stringer Plate, breadth and thickness.....	74 + .56 + .05	app. .56
If Sheathed, material and thickness	Fwd. well 3" PP.	✓	Plating, Sheathing, material and thickness ...	.48 + .05	3" P.P. app. .48
Second Deck.			Forecastle Deck.		
Stringer Plate, breadth and thickness in Wells...	59 + .48	app. 53"	Stringer Plate, breadth and thickness.....	37 + .40	
			Plating, Sheathing, material and thickness ...	.36 3" P.P.	✓

SHELL PLATING.


SCANTLINGS.						RIVETING.						
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES. State if jogged?			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	59	.94	.84	.88	See better	Double	1	3 7/8	4	1	4	Lapped
„ DELG. (if any)	✓											
BOTTOM PLATING, No. of Strakes 4.... }	78 1/2	.73	.60 + .56 35t. 80 100 45 6 1/2	.62 .66		“	1	3 7/8	4	1	4	“
BILGE PLATING, No. of Strakes 2.... }	74 } 66 }	.73 + .05	.56	.66	+ .05 owners	“	1	3 7/8	4	1	4	“
SIDE PLATING, No. of Strakes 6.... }	72 } 72 }	1 1/2 M = .71 H = .81	.52	.52		“	7/8	3 4/10	4	7/8	3 1/2	“
UPPER DECK, Sheer-strake in Wells..... }												
UPPER DECK, Sheer-strake in Bridge "X." }	72	.71	.52	.52		“	7/8	3 4/10	4	7/8	3 1/2	“
STRAKE BELOW Sheer-strake in Wells..... }												
STRAKE BELOW Sheer-strake in Bridge ... }	72	.71	.52	.52		“	7/8	3 4/10	4	7/8	3 1/2	“
POOP SIDE PLATING	✓											
BRIDGE SIDE PLATING ... }	50 1/2 } 5 1/2 Sheer }	.64 + .05			+ .05 owners	“	7/8	3 4/10	4	7/8	3 1/2	“
FOREC'TLE SIDE PLATING		.46				Single	3/4	3	2	3/4	2 5/8	“

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)	1				
" Deck next below	7				
As per Rule	8				

	Plating Thickness.	STIFFENERS.			
		VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKH'D, ^{2nd} Upper between decks	26-27	4+3+30L	30"	✓	—
" " ^{3rd} Second "	27-33	5½+3+32L	30"	✓	—
" " Third "	✓				
" " Holds	33-43	9+3½+3½+ ⁴² / ₅₄ L	30"	✓	—
COLLISION " (in Hold)	34-52	8+3+42L	24"	✓	—
AFTER PEAK " "	28-46	8+3+42L	24"	✓	—

KEEL, Bar	upper part rolled 11+2 7/8
STEM	one foot - Casting. F.H. Lloyd & Co
STERN, Propeller Post	
FRAME (Rudder "	Casting, Open Section { Skoda works / Pilsen / Czechoslovakia
RUDDER—A × D	Semi balanced
Speed of Vessel	16 kts
RUDDER mainpiece at head }	 Stock 17" dia 7' x 3" forged steel 1/2" over plate by Skoda works.
" " heel }	
" " how constructed	M.S. Casting
" " double or single plate	double.
" " coupling, vertical or horizontal	vertical

STEEL.	Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture)	Caloville. Ltd. Glasgow.
	Has the Steel been tested as required by the Rules?	Yes.

Cassett Iron Co. Steel Co of Portland, Lomarkshire STEEL Co, Dorman Long & Co, Bessemer Partners, Birmingham
open heart process.

EQUIPMENT No 60739										LETTER L+		ANCHORS.				
Number of Certificate.	Anchors.	WEIGHT, EX. STOCK.			WEIGHT OF STOCK.			TEST, PER CERTIFICATE.				WEIGHT REQUIRED BY TABLE 53.	Description of Anchor.	Makers.	Where and when tested and Superintendent.	
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.	Cwts.				
93365	1st Bower ...	110	0	21	Stockless			71	7	2	0	104½	Ningley Challenge	Ningley & Smith	N. 18.1.34. N. Green	
93364	2nd „ ...	109	1	14				71	0	0	0	104½	“	“	“	“
93363	3rd „ ...	109	0	21				71	0	0	0	89.	“	“	“	“
	Collective weight.	328	3	0								298				
93400	Stream	31	3	6		8	0	6	30	0	2	14	31	Ordinary	“	“ 31.1.34 “

CHAIN CABLES.										HAWERS 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.		Tons.	Fathoms.	Ins.
	Fathoms.	Ins.	Tons.	Tons.	Cwts.	qrs.	lbs.	Cwts.	Fathoms.	Ins.					Fathoms.	Ins.	Tons.	Fathoms.	Ins.
86950	165	2 ¹³ / ₁₆	133 ³ / ₂₀	186 ³ / ₄	660.2.		16	1317	165	2 ¹³ / ₁₆	Old Ningley class	N. 19.1.34 N. Green	TOWLINE...		130	6 ¹ / ₂	112.3	130	6 ¹ / ₂
86954	165	2 ¹³ / ₁₆	133 ³ / ₂₀	186 ³ / ₄	661.2.		3		165	2 ¹³ / ₁₆	Link	"	N. 7.2.34. N. Green	HAWERS & WARPS	20	120	2 ³ / ₄	120	2 ³ / ₄
															20	120	2 ³ / ₄	120	2 ³ / ₄
Iron Steam or Steel Wire	120	5 ¹ / ₂		84.4					120	5 ¹ / ₂									

Steering Gear, Steam *Naske, Hydraulic Electric* Steering Gear, Hand ✓

Boats 4 Lifeboats Steering Chains, Size and Test ✓ Windlass Clarke Chapman.

Ceiling in Holds, thickness and material Insulated, except No 6 - no ceiling Cargo Battens, thickness, material and spacing 6" x 2" spaced 9" W.P. in Bridge, shelter T. Bks from fwd of H. casing to aft. and in No 6 hold & tween decks

Cargo Hatchways. (Upper Deck) Steel plates & angles Thickness of Hatches 2 1/2" - No 3 = 2 3/4"

Size of No. 1 Hatchway (Forward) 18' x 18' No. 2 24' - 8' x 18' No. 3 19' - 10' x 18' No. 4 19' - 10' x 18' No. 5 22' - 8' x 18' No. 6 17' x 18'

Number of Shifting Beams and/or Fore and Afters No 1 = 3 No 2 = 5 No 3 + 4 = 3. No 5 = 4 No 6 = 3

FOR HARLAND AND WOLFF, LIMITED.
A. J. Marshall
Assistant Secretary.

Builder's Signature

GENERAL DECLARATION. It should be stated (a) whether the vessel is fitted for the carriage and burning of oil used as fuel Yes *oil Engine 2 Vertical W.H. boilers* (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. are as over

being above 150°F.

This vessel has been constructed in accordance with the approved plans, the Registrar's letters, and generally in conformity with the Society's Rules. The workmanship and materials are good. The double bottom tanks, peaks and deep O.F. Tanks and bunkers and cofferdams have been tested as required by the Rules with satisfactory results. The weather decks, W.T. Bulkheads, flats & tunnels, ^{deck lights} have been satisfactorily tested. The steering gear, windlass and anchors, bilge pumps and W.T. bulkhead and side shell cargo doors have been tried and tested and found in order. The freeboards assigned have been verified and the markings cut in the vessel's sides. The vessel is insulated throughout with the exception of No 6 hold and tween decks and the shelter tween decks at aft No 2 hold.

The amount of Entry Fee £ 12 : 0 : 0 Fees applied for, 31/8/1934

Special Survey Fee.... £ 459: 15 : 6 Received by me, 12/9/34

Freeboard 20:0:0 Travelling Expenses, if any £ : : ✓

I am of opinion the Vessel should be Classed 100. A. I. with freeboard

Fitted for O.F. (8.34) flash pt above 150°F.

D.F. E.S.D. E.L. *R. Johnson*

State whether the Vessel has been built under Special Survey Yes. Signature

Certificate to be sent to Belfast Date of issue 14/9/34. Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 14 SEP 1934**

Character assigned + 100A1 with freeboard

+ L.M.C. 8.34

Claydon A. & Co

Write Lb. 12.14/9/34

ML

C.L.

Gray C. E. 2020

Lloyd's Register Foundation

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.)

Forging and Casting reports now forwarded:-

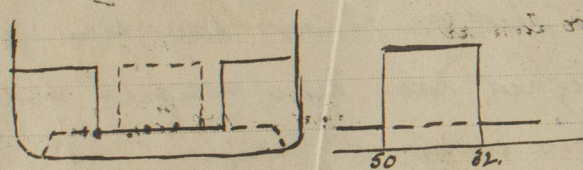
Rudder frame, arm & liner for Rudder head. Rudder head Coupling bolts & nuts ✓
Tiller, Stem frame. ✓ Propeller brackets & connecting bolts, Forefoot. ✓
Advice notes for material also forwarded. ✓

as built plans of Profile, Ricks and Midship section are enclosed for reference. Copies of other plans are retained in London.

It is requested the plans now forwarded may be returned to Belfast for reference during the completion of the Sister vessel No 923.

Particulars of Double Bottom.

		frames	W.B.	OF.	LUB.OIL	F.W.
D.B. aft. of midships. 116'-2"	D.B. aft. of midships	73-50	102			
" in H.S. 68'	"	50-32		813		
" fwd midships. 247'-1"	H.S.	32-8A		340	32	
Total Length 431'-3" incl wells.	D.B. fwd.	8A-1F		144		
D.B. Tank (50-32A) 51'-0" in length is in communication with deep O.F. side tanks	"	2F-87F	875	512		340
	IE:-	Nos 1.2.3.4	as W.B. Tanks			875 Tons
		Nos 5.6.7.8	FW			340 "
		Nos 9.10.11.12	OF			512 "
						Nos 1.2.3.4 as W.B. Tanks + Nos 5 OF = 875 + 144 = 1019 Tons.



Particulars of Drop Test of Cast Steel Anchors, viz.:-
Weight, Surveyor's Initials,
Number of Certificate, Date
of Test.

1st Bower	56	1	5	N.B.	8636	26-10-33
2nd "	57	0	10	N.B.	9462	30-11-31
3rd "	57	1	18	N.B.	9503	30-1-32.

See letter re. wt of anchor head

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ✓ ft., R.Q.D. ✓ ft., Bridge 195.5 ft., Forecastle 65. 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) 2 Decks (all) + Shelter deck (all) (W.S. for use) 3 decks (all) no hold

Official No. 163655 ; Signal Letters G.W.T.Z.

Is bottom of Vessel coated with cement if not give

Particulars of composition Fresh water double bottom tanks cemented. Water Ballast D.B. Tanks, outside strakes flushed up with cement and floors etc cement washed in F.W and W.B. Tanks.

PARTICULARS OF WATER BALLAST.—

Where Fitted.	Length. Feet.	Water Capacity. Tons.	Where Fitted.	Length. Feet.	Water Capacity. Tons.
Double bottom, aft, 73-50A	65'-2"	102	Fore peak tank,	29'-6"	122
Double bottom, under Engines and Boilers,			After peak tank,	20'-6"	171
Double bottom, if under Engines only, see above.			Deep tank, aft,		
Double bottom, if under Boilers only,			Deep tank, forward,	51'-0"	93.0
Double bottom, forward, 12F-87F	190'-5"	875	Other tanks, if fitted, { Centre O.F. deep. (50-32)A. O.F. deep. (8A-1F)	22-8	982.0
Total capacity of double bottom		977.	(If necessary, furnish further information by sketch.)		
Totals	431'-3"	2428 Tons	See letter		

Order for Special Survey No. 834

Date 22/6/33.

Dates of Surveys held while building

1933
June 30 July 6 Aug 19.11.15.18.22.25.29 Sep. 1.6.7.11.13.14.15.18.20.21.27 Oct 2.3.5.6.11.12.16
20.23.24.30 Nov. 8.9.15.16.17.20.22.24.27.30 Dec. 1.5.18.20.21.24.25.26.27.28 Jan 3.4.5.9.10.12.19.21
24.28.29.31 Feb 2.6.8.9.12.13.14.15.16.19.20.21.22.25.27.28 Mar 1.2.6.7.9.12.15.16.19.22.26.28
28 Apr 6.9.10.11.12.13.17.18.19.20.24.25.26.30 May 1.3.7.9.16.18.21.30 June 8.11.18.19.22.24
July 3.24.31 Aug 1.10.14.15.16.17.20.25.28.
Total No. of Visits 128