

STEEL ~~STEAMER~~ or MOTORSHIP.

Received at London Office... DEC 2 1939

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

36. 11. 39

Port of BELFAST

No. 12500

Survey held at Belfast

Date First Survey 9th Sept. 1938

Last Survey 26 Nov. 1939

On the (State of Machinery, Hulled Aft and
if Single, Twin or Triple Screw)

Yarrow screw motor ship "WAIOTIRA"

State Type (Full Scanning, Complete
with or without Tensile)

State Type of Erections P.B. + F on 5/4 OK

TONNAGE under 8825.23

CLASS \times 100A1 with
freboard

State if with freeboard) Yes
as condition of Class)

Built at Belfast

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

Length from fore part of stem to after part of stern } L 515.0
 post on summer L.W.L. See Sec. 3 (1a) }

Launched 1st August 1939 Yard No. 1019

Total 8825/23

Breadth (*greatest moulded*) B 70.0

Builders Harland and Wolff, Ltd

Gross Tonnage 11,101.92

Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c) } D 43.37

✓ Owners Shaw, Savill & Albion Co. Ltd

Register Tonnage 6662.91

1st Longitudinal Number (L x D)..... = 22145

Managers

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

2nd Numeral $L \times (B + D) \dots\dots\dots = 58195$

Residence

REGISTERED DIMENSIONS.

FEET.

Length / 516.95

Framing Depth "d," at middle of length. See } 19.46
Sec. 3 (1d) }

Port of Registry *Southampton*

Breadth / 70.46

Proportions—Depth to Length—Uppermost continuous deck to top of keel } 11.87

If surveyed while building, afloat, or in dry dock

Depth 32.35

Do. Long Bridge to top of keel } 10.03

Draught Moulded 29. 54

Building afloat and in dry dock

FRAMES. DOUBLE BOTTOM AND BEAMS.

	INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
FRAMES, Spacing amidships	34 ✓	
" " from $\frac{3}{8}$ length amidships to } Collision bulkhead..... }	27 ✓	
" " in peaks.....	24 ✓	
SIDE FRAMING.		
Frame Amidships, Angle, [or F.....	9 x 40 x 3½ x 3½ x 54 ✓	
" " Extends up to Shell Plating Br. Sk. all. ✓		
Reversed Frame Amidships, Angle E.R.	4 3½ 34 ✓	
" " Extends up to Main Sk. ✓		
Inter. Brs 4 x 3½ " 38' in Bridge, scarphed (18) to main fr. ✓		
Depth of Framing Girder.....	9 ✓	
Frames in Uppermost Continuous 'tween Decks, Angle, [or F.....	9 x 40 x 3½ x 3½ x 54 ✓	
" " Second 'tween Decks, Angle, [or F.....	do. ✓	
" " Third " " " "	9 x 40 x 3½ x 3½ x 54 ✓	
" " from ¼ len. for'd. to 15% len. from Stem See letter 14/12/39 ✓	N.I. Hold, riv. ¾ x 4 x 2 x 42 to main sk. ✓ fr. 9 x 58 x 3½ x 3½ x 54 ✓ riv. ¾ x 5 x 4 x 42 on all. ✓ to lower dk. ✓	
" " in Peaks, Angle or [.....	9 3½ 42 ✓	
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	⅝" dia. 5½" apart ✓	
State if Frame Joggled	Amidships only ✓	
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved?	Yes ✓	
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved?	Yes ✓	
ANGLE BOTTOM.		
Floors, Depth and thickness at mid-line in Holds		
Height of Brackets at side above base line at toe of frame		
Middle Line Keelson, on Floors, Angles, [or [.....		
" " Through Plate or Intercoastal Plate... }		
" " Foundation Plate on Floors		
" " Flat Plate Keel Angles		
Side Keelsons, No. each side		
" " thickness of Intercoastal Plate... }		
" " Angles		
TUBULAR BOTTOM.		
Solid Floors, thickness and spacing	48 every fr. ✓	
" " Are Frame and Reversed Frame joggled?	Frame only ✓	
Bracket Floors, breadth and thickness at middle line.....	✓	
" " breadth and thickness at margin plate.....	✓	
Bracket Floors, Frame	✓	
" " Reversed Frame	✓	
" " Vertical Struts	✓	
Centre Girder, depth and thickness amidships, Clear of E.R.	48½ x 60 ✓	
" " top Angles	3½ 3½ 56 ✓	
" " bottom Angles	5 5 60 ✓	
Side Girders, No. each side and thickness	2 @ .44 ✓	
Margin Plate depth (excl. of flange) and thickness clear of E.R.	42 x 62 ✓	
" " Vertical Angle to Tank side Bracket abaft ¼ len. from stem	6 6 48 ✓	
" " Vertical Angle to Tank side Bracket from forward ¼ len. from stem to Panting Area	6 6 48 ✓	
" " Gussets, spacing and scantling abaft ¼ len. from stem.....	Tank top plating carried 21" over tank side bracket ✓	
" " Gussets, spacing and scantling from forward ¼ len. from stem to Panting Area.....		
Tank Side Brackets, height above base line at toe of Frame and thickness }	74 x 48 ✓	
INNER BOTTOM PLATING.		
Breadth and thickness of Middle Line Strake ...	60 x 60 ✓	
Thickness of remainder in Holds	52 to 48 ✓	
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?	Yes ✓	
BEAMS.		
Uppermost Continuous Deck, amidships in Wells, Angle, [or F.....	Fwd 10 x 38 x 3½ x 3½ x 56 x Aft 8 x 52 x 3½ x 3½ x 52 ✓	
" " in way of Bridge, Angle, [or F.....	10 x 38 x 3½ x 3½ x 56 ✓	
" " Spacing	Every frame ✓	
Second Deck, amidships, Angle, [or F.....	11 x 46 x 4 x 4 x 60 x ✓ 10 x 40 x 3½ x 3½ x 56 ✓	
" " Spacing.....	Every frame ✓	
Third Deck, amidships, Angle, [or F.....	11 x 46 x 4 x 4 x 60 x ✓	
" " Spacing.....	Every frame ✓	
Fourth Deck, amidships, Angle, [or F.....	10 x 40 x 3½ x 3½ x 56 ✓	
" " Spacing.....	Every frame ✓	
Poop Deck, Angle, [or F.....	9 x 34 x 3½ x 3½ x 54 ✓	
" " Spacing.....	Every frame ✓	
Bridge Deck, Angle, [or F.....	8 x 52 x 3½ x 3½ x 52 ✓	
" " Spacing.....	Every frame ✓	
Forecastle Deck, Angle, [or F.....	10 x 48 x 3½ x 3½ x 56 ✓	
" " Spacing	Alternate frames ✓	
x Beams increased in way of suspended cargo		

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.....	<i>Two ✓</i>		Stringer Plate, breadth and thickness in way of Bridge	<i>56 x .48 ✓</i>	<i>Appd 53" ✓</i>
" in 'tween Decks, Size and Spacing.....	<i>wide spaced</i>		Thickness of Plating abreast Deck openings in way of Wells	<i>.44 ✓</i>	
" " " " "	<i>with</i>		Thickness of Plating abreast Deck openings in way of Bridge	<i>.44 and .38 ✓</i>	
" in Holds " "	<i>Girders as</i>	✓	Thickness of Plating within line of openings...	<i>.36 and .34 ✓</i>	
" " " " "	<i>approved.</i>		If Sheathed, material and thickness	<i>✓</i>	
Centre Line Bulkhead.			Third Deck.		
Stiffeners and Spacing.....	<i>✓</i>		Stringer Plate, breadth and thickness.....	<i>58 x .40 ✓</i>	<i>Appd 53" ✓</i>
Plating, thickness of	<i>✓</i>		If Plated, state thickness.....	<i>.36 ✓</i>	
STRINGERS AND DECKS.			Fourth Deck.		
Uppermost Continuous Deck.			Stringer Plate, breadth and thickness.....	<i>60 x .34 ✓</i>	<i>Appd. 58½" ✓</i>
Stringer Plate, breadth and thickness in Wells	<i>74 x .92 ✓</i>	<i>Appd. 87 ✓</i>	If Plated, state thickness	<i>.30 ✓</i>	
" " " " in way of Bridge	<i>53 x .48 ✓</i>		Poop Deck.		
" Angle in Wells	<i>6 6 .87 ✓</i>		Stringer Plate, breadth and thickness	<i>41 x .40 ✓</i>	
Thickness of Plating abreast Deck openings in way of Wells	<i>.68 ✓</i>	<i>Appd. 63 ✓</i>	" " " " "	<i>.30 x .26 ✓</i>	
Thickness of Plating abreast Deck openings in way of Bridge	<i>.44 ✓</i>		Plating, Sheathing, material and thickness ...	<i>5 x 2½ P.P. ✓</i>	
Thickness of Plating within line of openings...	<i>.46 and .44 ✓</i>		Bridge Deck.		
If Sheathed, material and thickness	<i>Jone well, 5 x 3 P.P. ✓</i>		Stringer Plate, breadth and thickness.....	<i>74 x .61 ✓</i>	<i>appd. 56" ✓</i>
Second Deck.			" " " " "	<i>.53 ✓</i>	<i>" 48" ✓</i>
Stringer Plate, breadth and thickness in Wells...	<i>56 x .48 ✓</i>	<i>Appd. 53" ✓</i>	Plating, Sheathing, material and thickness ...	<i>5 x 2½ P.P. ✓</i>	
			Forecastle Deck.		
			Stringer Plate, breadth and thickness.....	<i>37 x .40 ✓</i>	
			Plating, Sheathing, material and thickness' ...	<i>.36 ✓</i>	

SHELL PLATING.

SCANTLINGS.					RIVETING.								
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES.			BUTTS.				
	AMIDSHIPS.		FORWARD.	AFT.		State if jogged? <i>No</i>	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.	
<i>Clear of Duct Keel</i> FLAT PLATE KEEL ...	<i>59</i> ✓	<i>.94</i> ✓	<i>.84</i> ✓	<i>.90</i> ✓		<i>Double</i> ✓	<i>1</i> ✓	<i>3 7/8</i> ✓	<i>4</i> ✓	<i>1</i> ✓	<i>4</i> ✓	<i>Lapped</i> ✓	
DBLG. (if any)	✓												
BOTTOM PLATING, No. of Strakes ...		<i>.43</i> ✓	<i>.56</i> ✓	<i>.56</i> ✓		<i>"</i> ✓	<i>1</i> ✓	<i>3 1/4</i> ✓	<i>4</i> ✓	<i>1</i> ✓	<i>4</i> ✓	<i>"</i> ✓	
BILGE PLATING, No. of Strakes ...	<i>3 Strakes</i>	<i>.48</i> ✓	<i>.56</i> ✓	<i>.56</i> ✓	<i>Appd. .73 (.05 owners)</i>	<i>"</i> ✓	<i>1</i> ✓	<i>3 7/8</i> ✓	<i>4</i> ✓	<i>1</i> ✓	<i>4</i> ✓	<i>"</i> ✓	
SIDE PLATING, No. of Strakes ...		<i>.41</i> ✓	<i>.52</i> ✓	<i>.52</i> ✓	<i>1st str. above bilge .81 (owners req.)</i> ✓	<i>"</i> ✓	<i>7/8</i> ✓	<i>3 3/10</i> ✓	<i>4</i> ✓	<i>7/8</i> ✓	<i>3 1/2</i> ✓	<i>"</i> ✓	
UPPER DECK, Sheer- strake in Wells.....	<i>2 1/4</i> ✓	-	<i>.91</i> ✓	<i>.91</i> ✓	<i>Appd. .86 (.05 owners)</i>	<i>"</i> ✓	<i>1</i> ✓	<i>3 7/8</i> ✓	<i>5</i> ✓	<i>1</i> ✓	<i>4 1/2</i> ✓	<i>"</i> ✓	
UPPER DECK, Sheer- strake in Bridge ...	<i>2 1/4</i> ✓	<i>.41</i> ✓	-	-		<i>"</i> ✓	<i>7/8</i> ✓	<i>3 3/10</i> ✓	<i>4</i> ✓	<i>7/8</i> ✓	<i>3 1/2</i> ✓	<i>"</i> ✓	
STRAKE BELOW Sheer- strake in Wells.....	<i>1/2</i> ✓	-	<i>.83</i> ✓	<i>.83</i> ✓	<i>Appd. .78 (.05 owners)</i>	<i>"</i> ✓	<i>1</i> ✓	<i>3 7/8</i> ✓	<i>4</i> ✓	<i>1</i> ✓	<i>4</i> ✓	<i>"</i> ✓	
STRAKE BELOW Sheer- strake in Bridge ...	<i>1/2</i> ✓	<i>.41</i> ✓	-	-		<i>"</i> ✓	<i>7/8</i> ✓	<i>3 3/10</i> ✓	<i>4</i> ✓	<i>7/8</i> ✓	<i>3 1/2</i> ✓	<i>"</i> ✓	
POOP SIDE PLATING		-	-	<i>.44</i> ✓		<i>Single</i> ✓	<i>3/4</i> ✓	<i>3</i> ✓	<i>2</i> ✓	<i>3/4</i> ✓	<i>2 5/8</i> ✓	<i>"</i> ✓	
BRIDGE SIDE PLATING ...		<i>.69</i> ✓	-	-	<i>Appd. .64 (.05 owners)</i>	<i>Double</i> ✓	<i>7/8</i> ✓	<i>3 3/10</i> ✓	<i>4</i> ✓	<i>7/8</i> ✓	<i>3 1/2</i> ✓	<i>"</i> ✓	
FORE'TLE SIDE PLATING		-	<i>.46</i> ✓	-		<i>Single</i> ✓	<i>3/4</i> ✓	<i>3</i> ✓	<i>2</i> ✓	<i>3/4</i> ✓	<i>2 5/8</i> ✓	<i>"</i> ✓	

WATERTIGHT BULKHEADS.

FORGINGS and CASTINGS.

WATERTIGHT BULKHEADS.						Casting or Forging.		Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.	
Total No. of W.T. BULKHEADS in Vessel—											
Extending to Upper Deck (Sec. 3 c)						1 ✓					
" Deck next below						4 ✓					
As per Rule						8 ✓					
						STIFFENERS.					
						VERTICAL.		HORIZONTAL.			
Plating Thickness.						Scantlings.	Spacing.	Scantlings.	Spacing.		
MIDSHIP BULKH'D, Upper tween decks						26 ✓	5 x 3 x 34 ✓	30" ✓			
" " Second "						28 ✓	30 ✓	6 x 3 x 28 1/2 ✓	30" ✓		
" " Third "											
" " Holds						33 ✓	43 ✓	9 x 5 1/2 x 3 1/2 x 5 1/2 ✓	30" ✓		
COLLISION " (in Hold)						35 ✓	52 ✓	9 x 3 x 42 1/2 ✓	24" ✓	3 semi box beams ✓	
" " "						30 ✓	34 ✓	8 x 3 x 48 1/2 ✓			
AFTER PEAK " "						36 ✓	48 ✓	8 x 3 x 42 1/2 ✓	24" ✓	5 top in bulkhd. ✓	
KEEL, Bar						Flat, plate keel ✓		11 x 2 3/8 ✓			
STEM						5/16 in bar, Rolled S. For a foot ✓		CS ✓	Skoda ✓		
STERN FRAME						Propeller Post	CS ✓	As	Skoda ✓		
						Rudder " "		appd. ✓			
Speed of Vessel						16 knots ✓					
RUDDER—Type						Semi balanced ✓					
" A x D						Total area 233.5 sq ft ✓					
" Diam. of head						FS ✓		17" ✓	Skoda ✓		
" Mainpiece at top pintle						CS ✓		As ✓	Skoda ✓		
" " heel						appd. ✓					
" how constructed						Built ✓					
" 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)					
						Bolvilles Ltd., ✓ Consett Iron Co., ✓ Steel Co. of Scotland, ✓ Lanarkshire Steel Co., ✓ Dorman Long ✓					
Has the Steel been tested as required by the Rules?						Yes ✓					

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.)

This vessel is a duplicate of the WAIMARAMA Messrs Harland & Wolff's N° 1004, (Bel. Report N° 12.227)

The following Casting & Forging reports are forwarded herewith, viz:

Cast Steel Stern frame
Propeller Brackets
Rudder frame and stock
Cast steel forefoot
Tiller

PARTICULARS OF ELECTRIC WELDING (if employed) Boundary bulkheads of all oil fuel bunkers. Deck girders to decks, deck stringers to shell (except exposed decks). Tank tops at fore end of N° 1 hold carried out to shell and welded thereto, the side frames being carried through tank top and tanks made watertight in way by means of welded chocks. Electric welding employed extensively throughout vessel in attachment of bulkhead stiffeners and brackets to tank top and decks, and in minor non strength details. *electrodes*

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book Cruiser Stern. Ref. Machy. E.S.D. Gyc. D.F. Oil Eng.

Particulars of Drop Test of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower 57. 1. 26 NS 1775 27. 10. 37 (Wt. of head including pins &c. 70. 1. 26 ✓
	2nd " 56. 2. 18 NS 1752 1. 10. 37 " " " 69. 2. 18 ✓
	3rd " 57. 0. 19 NS 1751 1. 10. 37 " " " 70. 0. 3 ✓

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 64.3 ft., R.Q.D. ✓ ft., Bridge 195.5 ft., Forecastle 65.8 ft. (in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated ✓

Official No. 166871 Signal Letters GBJB Extreme Breadth over Belting none. Over-all Length 535.5 ft. (Circ. 1703)
No. and Material of Decks 2 decks and shelter deck (516) 4th Deck in N° 2 & 3 holds.
Parts of Bottom of Vessel coated with cement or approved composition For double bottom tanks, cement. N. 13. double bottom tanks, outside strakes cemented flush. pt cem.
Particulars of composition (if fitted) and of approval ✓

PARTICULARS OF WATER BALLAST:—(Comprising all tanks which may be used for Water Ballast. (Circ. 1284) Wells are not to be included in the lengths of the tanks, but Cofferdams and Dry Tanks (if tested) are to be included.)

Where Fitted.	Length. Feet.	Water Capacity. Tons.	Where Fitted.	Length. Feet.	Water Capacity. Tons.
Double bottom, aft, Frames 51-73a	62.3 ✓	98	Fore peak tank,	29.5	122 ✓
Double bottom, under Engines and Boilers,			After peak tank,	20.5	171 ✓
Double bottom, if under Engines only, 1a-28a	76.5 ✓	464	Deep tank, aft,		
Double bottom, if under Boilers only,			Deep tank, forward,		
Double bottom, forward, 1a to 87f.	227.2 ✓	887	Other tanks, if fitted,		
Total length (if continuous) and Capacity		1449 ✓	Tanks at ends and sides of timbers, including common double bottom 28a-51a. 1612 ✓ (If necessary, furnish further information by sketch.)		

Order for Special Survey No. 876	1938 Sept 9. 30 Oct 7. 25. 26 Nov. 10. 17. 28 Dec 1. 6. 12	1939 Jan 1. 10. 12. 17. 24 Feb. 9. 16. 21. 22
Date 9. 8. 38	Mar 9. 15. 17. 24. 31 Apr 3. 7. 12 May 3. 4. 9. 12. 16. 18. 22. 24. 25. 30. 31	June 1. 2. 3. 6. 7. 8. 9. 12. 13. 16
	19. 21. 22. 23. 26. 27. 28. 29 July 3. 4. 5. 6. 19. 20. 21. 24. 25. 26 Aug. 8. 16. 22. 39. 31	Sept 4. 11. 19 Oct 6
	19. 23. 24. 25. 26. 27. 28. 30 Nov. 3. 6. 9. 15. 16. 17. 20. 21. 22. 23. 24. 26	
	Total No. of Visits 96	