

STEEL STEAMER or MOTORSHIP.

No. 97140

FEB -6 1939

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

State if Report is sent on the Machinery of the Vessel

Date of completion of report

31st January 1939

Port of NEWCASTLE-ON-TYNE

Survey held at

Wallsend on Tyne

Date First Survey

10 May 1937

Last Survey

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

Quadruple Screw

"Dominion Monarch"

Machinery amidships

State Type (Full Scantling, Complete Superstructure with or without Tonnage Openings)

Passenger vessel with refrigerated spaces

State Type of Erections

Long Bridge of Ice

TONNAGE under Tonnage Deck

14347.03

CLASS

Corresponding to a

State if with freeboard

Yes

Built at

Wallsend on Tyne

Do. of space or spaces between Tonnage Dk. and Upper Dk. E & F

4042.60

Length from fore part of stem to after part of stern

L

650

Launched 27 July 1938

Yard No. 1547

Total

18389.63

Breadth (greatest moulded)

B

84.5

Builders

Swan Hunter & Wigham

Gross Tonnage

27154.83

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

D

48.5

Owners

Shaw Savill & Albion Co. Ltd.

Register Tonnage

15813.27

1st Longitudinal Number (L x D)

=

(100 B)

Managers

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

REGISTERED DIMENSIONS.

Length

657.6

Breadth

84.8

Depth

34.9 to Fdk.

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

To Hdk 18-96

Residence

Port of Registry

Southampton

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

13.4

If surveyed while building, afloat, or in dry dock

While building

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	33	✓	Bracket Floors, Frame	8 x 3 1/2 x .35	✓
" " from 3/8 length to Collision bulkhead	27	✓	" " Reversed Frame	8 x 3 1/2 x .35	✓
" " in peaks	24	✓	" " Vertical Struts	8 x 3 1/2 x .35	✓
SIDE FRAMING.			Centre Girder, depth and thickness amidships	54 1/2 x .69	✓
Frame Amidships, Angle, [or F	10 x 3 1/2 x 3 1/2 x .40	✓	" " top Angles	75 1/2 x 7 1/2 x .40	✓
" " Extends up to	E dk (now B)	✓	" " bottom Angles	5 x 5 x .69	✓
Reversed Frame Amidships, Angle	5 x 3 1/2 x .50	✓	Side Girders, No. each side and thickness	2 @ .46	✓
" " Extends up to	H dk	✓	Margin Plate depth (excl. of flange) and thickness	70	✓
Depth of Framing Girder	10 1/2	✓	" " Vertical Angle to Tank side Bracket abaft 1/4 len. from stem	6 1/2 x 6 1/2 x .55	✓
Frames in Uppermost Continuous 'tween Decks, Angle, [or F	E & F dk	✓	" " Vertical Angle to Tank side Bracket forward 1/4 len. from stem	6 1/2 x 6 1/2 x .55	✓
" " Second 'tween Decks, Angle, [or F	F & G dk	✓	" " Gussets, spacing and scantling abaft 1/4 len. from stem	4 x 4 x .49	✓
" " Third " " "	ditto	✓	" " Gussets, spacing and scantling forward 1/4 len. from stem	4 x 4 x .49	✓
Framing in Peaks, Angle, [or F	11 x 3 1/2 x .46	✓	Tank Side Brackets, height above base line at toe of Frame and thickness	7-6 x .49	✓
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	7/8 @ 4 7/8	✓	INNER BOTTOM PLATING.		
State if Frame Joggled	Yes	✓	Breadth and thickness of Middle Line Strake	69 1/2 x .70	✓
PANTING ARRANGEMENTS (Sec. 7), state system and particulars	Deep frames to T dk. 12 x 4 x 4 x .52 w/ 60 F with 5 x 5 x .56 rev. L.S. (Rule 42 x 4 1/2 x .56) Stringers as approved.	✓	Thickness of remainder in Holds	.56 - .54	✓
STRENGTHENING OF BOTTOM FORWARD. State Particulars	A.B.C. Strakes 8 x 5 .93 from 1/2 L to .98 in way of 27" spacing to Collision Bulkhead. Also addl. intercostals & double riveted bottom frames.	✓	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 as applicable	✓
SINGLE BOTTOM.			BEAMS.		
Floors, Depth and thickness at mid-line in Holds	✓	✓	Uppermost Continuous Deck, amidships	8 x 3 1/2 x 3 1/2 x .52	✓
Height of Brackets at side above base line at toe of frame	✓	✓	" " in Wells, Angle, [or F	at 20 ft. span with 3 1/2 x .25 rivets	✓
Middle Line Keelson, on Floors, Angles, [or F	✓	✓	" " (now B), in way of Bridge, Angle, [or F	33	✓
" " Through Plate or Intercostal Plate	✓	✓	Spacing	33	✓
" " Foundation Plate on Floors	✓	✓	Second Deck, amidships, Angle, [or F	✓	✓
" " Flat Plate Keel Angles	✓	✓	Spacing	33	✓
Side Keelsons, No. each side	✓	✓	Third Deck, amidships, Angle, [or F	✓	✓
" " thickness of Intercostal Plate	✓	✓	Spacing	33	✓
" " Angles	✓	✓	Fourth Deck, amidships, Angle, [or F	✓	✓
DOUBLE BOTTOM.			Spacing	33	✓
Solid Floors, thickness and spacing	.49 Generally every 3rd frame	✓	Poop Deck, Angle, [or F	✓	✓
" " Are Frame and Reversed Frame joggled?	Yes	✓	Spacing	33	✓
Bracket Floors, breadth and thickness at middle line	52 x .49	✓	Bridge Deck, Angle, [or F	✓	✓
" " breadth and thickness at margin plate	.49	✓	Spacing	33.27	✓
			Forecastle Deck, Angle, [or F	✓	✓
			Spacing		

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.....	Generally 4 rows	✓	Stringer Plate, breadth and thickness in way of Bridge	✓	
„ in 'tween Decks, Size and Spacing.....	widely spaced tubular pillars	✓	Thickness of Plating abreast Deck openings in way of Wells .....	.42 5	increased locally ✓
„ „ „ „ „	fitted as per approved detail plans	✓	Thickness of Plating abreast Deck openings in way of Bridge	✓	
„ in Holds „ „		✓	Thickness of Plating within line of openings..	.38 5	increased locally ✓
„ „ „ „ „		✓	If Sheathed, material and thickness	✓	
Centre Line Bulkhead.			Third Deck. G now D		
Stiffeners and Spacing.....			Stringer Plate, breadth and thickness.....	72 x .34	increased locally ✓
Plating, thickness of	81 x .86 Stringer	✓	If Plated, state thickness.....	.30	increased locally ✓
STRINGERS AND DECKS.	81 x .86 Stringer	✓	Fourth Deck. H now E		
Uppermost Continuous Deck. E dk.	72 x .50	✓	Stringer Plate, breadth and thickness.....	72 x .34	.42 in way O.F. bulkheads
Stringer Plate, breadth and thickness in Wells .....	.57 locally for	✓	If Plated, state thickness .....	.30	
„ „ „ „ in way of Bridge	1.12 " aft	✓	Poop Deck.		
„ Angle in Wells	Deck electric welded to shell 3 1/2 x .50 flat	✓	Stringer Plate, breadth and thickness	✓	
Thickness of Plating abreast Deck openings in way of Wells .....	.46	✓	Plating, Sheathing, material and thickness ..		
Thickness of Plating abreast Deck openings in way of Bridge	increased locally up to 1.04	✓	Bridge Deck. F dk. D dk. A	72 x .57	increased to 1.30 at breaks
Thickness of Plating within line of openings..	Geny. 38	✓	Plating, Sheathing, material and thickness ..	.53 - .40	increased locally
If Sheathed, material and thickness	2 1/2" teak where exposed aft	✓	Forecastle Deck.		
Second Deck. F dk. (now C)	72 x .46	✓	Stringer Plate, breadth and thickness.....	41 x .46	.35
Stringer Plate, breadth and thickness in Wells...	increased locally	✓	Plating, Sheathing, material and thickness ..	Sheathed 2 1/2" teak	✓

SHELL PLATING.

SCANTLINGS.					RIVETING.				
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.				
	AMIDSHIPS.		FORWARD.	AFT.					
	Breadth.	Thickness.	Thickness.	Thickness.					
FLAT PLATE KEEL	6 1/2	1.13	1.03	1.03	✓	EDGES. NO	BUTTS.		
„ DBLG. (if any)	✓					State if jogged?			
BOTTOM PLATING, No. of Strakes	A 1/2	.86	.64	.64	✓	SINGLE OR DOUBLE.	RIVETS.	NO. OF ROWS OF RIVETS.	RIVETS.
BILGE PLATING, No. of Strakes	F	.91	.64	.64	✓	Diam.	Spacing cr. to cr.	Diam.	Spacing cr. to cr.
SIDE PLATING, No. of Strakes	G 1/2	.85	.60	.60	✓	Inches.	Inches.	Inches.	Inches.
UPPER DECK, Sheer-strake in Wells.....	N	.76	.60	.60	✓	Double	1 1/8 4 1/8	4 row Straps	1 1/8 4 3/8
UPPER DECK, Sheer-strake in Bridge	O	.76	.60	.60	✓	Single	1 3/8 3 3/8	5-3	1 4 1/2
STRAKE BELOW Sheer-strake in Wells.....	P	.81	.60	.60	✓	Double	1 3/8 3 3/8	5-3	1 4 1/2
STRAKE BELOW Sheer-strake in Bridge					✓	Double	1 3/8 3 3/8	4-3	1 4
POOP SIDE PLATING					✓	Double	1 3/8 3 3/8	4-3	1 4
BRIDGE SIDE PLATING					✓	Double	1 3/8 3 3/8	4-3	1 4
FORECASTLE SIDE PLATING					✓	Double	1 3/8 3 3/8	4-3	1 4

WATERTIGHT BULKHEADS.

Total No. of W.T. BULKHEADS in Vessel	8 W.T. or O.T. BULK. to E dk	now B dk.
Extending to Upper Deck (Sec. 3 c)	Fore peak BULK. to D	
„ Deck next below	Aft peak BULK. to G dk.	
As per Rule	Governed by Subdivision regts.	

FORGINGS and CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any departure from approved plans to be noted.
KEEL, Bar	Flat plate keel			
STEM	Rolled steel bar 12 x 3 1/2			
STERN FRAME	Cast steel			
Propeller Post	Cast steel			
Rudder	Cast steel			
Speed of Vessel	19.5 knots			
RUDDER—Type	Balanced			
„ A x D	Modified 1421			
„ Diam. of head	19 3/8 upper stock forged steel			
„ Mainpiece at top pintle	20 x 20			
„ „ heel	13 x 13			
„ how constructed	Cast built			
„ double or single plate	8 1/2 plates			
„ coupling, vertical or horizontal.....	Vertical			

STIFFENERS.					
	Plating Thickness.	VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKHEAD	at 84 ft. E dk.	.26	27 1/2	✓	
„ „ „	Upper tween decks	.27	4 1/2 x 30	30 1/2	✓
„ „ „	Second	.32	4 1/2 x 32	32	✓
„ „ „	Third	.33	4 1/2 x 32	32	✓
„ „ „	Holds .....	.33	8 1/2 x 42	27 1/2	✓
COLLISION	Below J dk. (in Hold)	.45	8 x 3 1/2	24	✓
AFTER PEAK	Below H dk.	.30	8 1/2 x 33 1/2	24	✓

STEEL.	Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture)	open hearth process
	Cousett Iron Co. Dorman Long & Co. Skinningrove Iron Co. Appleby, Frodingham Steel Co.	
	Cargo Fleet Iron Co. Colvilles Ld. Raine & Co. Steel Co. of Scotland Ld.	
	Has the Steel been tested as required by the Rules?	Yes

Memo to Report 1 on Q.S.M.V. "Dominion Monarch"
Swan Hunters No 1547.

Preliminary & Official Sea trials January 1939.
with Condition of Ship $\frac{\text{aft}}{\text{for}}$ 23-5 } approx. mean 21-3
19-1

Approx. displacement 20,000 tons

At Speed Corresponding to about 110 revs. the following helm movements & times were taken

Helm movement	Times			
	At Bridge for 40° angle of helm with Port pump.	with Starboard pump	At Steering engine for 35° angle of helm with Port pump	with Starboard pump
Midships to H.P.	17 Secs.	15	15 Secs	14
H.P. to H.S.	29	28	30	28
H.S. to H.P.	29	29	30	26
H.P. to midships	9	10	14	15

The angle of heel was about $2\frac{1}{2}^{\circ}$

A circle with full port helm was taken in 6 m. 35 Secs & with Starboard helm the times were 3 m. 25 Secs for half circle, and 6 m. 40 Secs for complete circle, the diameter of circles being approx. $3\frac{1}{2}$ ship lengths.

The maximum angle of heel during these operations was about 5° .

The ship was also steered mechanically by the gyro compass.

The direct hand control steering wheel aft was also tried at speed 10-12 knots & found satisfactory.

The anchors were also tried & with the windlass were found satisfactory.

with Condition of Ship $\frac{\text{aft}}{\text{for}}$ 26-10 } approx. mean 25-3
23-8

Displacement about 24,900 tons

The following runs were taken on the St. Abbs Mile.

Course	Speed knots	mean	approx revs mean	approx IHP mean	
N.W.	16.00	16.44	95	—	
S.E.	16.88				
N.W.	18.57	19.10	110	20,700	
S.E.	19.63				
N.W.	19.74	20.52	120	26,200	BHP
S.E.	21.31				
N.W.	20.65	21.67	128	31,500	26,800
S.E.	22.70				

The weather conditions were good.

From the order full astern, with ship going full ahead, the time to take the way off ship was approx. 3 minutes.

A. I. A. Keeler
1.2.39

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.)

have been hose tested and found Satisfactory. ✓
The W.T. doors, both power & hand operated have been tested & found Satisfactory. ✓
All double bottom tanks and deep tanks, Cofferdams, fore & after peak tanks & oil fuel bunkers have been tested as required by the Rules and found Satisfactory. ✓
The assigned freeboards have been marked on vessel's sides, verified & cut in. A B.O.T. C1 line has also been cut in at 34 ft. moulded draught. ✓

The Shell butts of O & P Stakes, the tank top, decks generally, the oil fuel bunkers, the W.T. and minor bulkheads, deck houses, also masts, derrick posts, pillars and numerous other items have been electrically welded. ✓

Echo sounding apparatus & gyro Compass fitted, also direction finder. ✓
The approved plans 95 in number also midship section as built and forging certificates are sent herewith. ✓

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book

Part electrically welded including decks and butts of topside plating. Fitted for oil fuel above 150° F.

D.F. (P) E.S.D. G.C. Without pin with pin
c. gr. lbs. c. gr. lbs.

Particulars of Drop Test of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower	93.3.18 ✓	95.1.7 ✓	N.S.	Nº 1117	of 30.1.36
	2nd "	95.1.17 ✓	96.3.6 ✓	N.S.	Nº 1671	of 22.6.37
	3rd "	95.0.17 ✓	96.2.6 ✓	N.S.	Nº 1669	of 22.6.37

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ✓ ft., R.Q.D. ✓ ft., Bridge 62275 ft., Forecastle 64 ft.
(in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated. The lower forecastle is joined to Bridge deck.

No. and Material of Decks 3 Sts (Stl) 4th deck (Stl) in forward holds & aft, & 5th Stl (Stl) in Nº 1 Hold. ✓

Official No. 166828 : Signal Letters
Is bottom of vessel coated with cement. Yes in Peaks & Fresh water tanks if not give particulars of composition. no coating in O.F. tanks. ✓

PARTICULARS OF WATER BALLAST.—

Where Fitted.	*Length. Feet.	Water Capacity. Tons.	Where Fitted.	*Length. Feet.	Water Capacity. Tons.
Double bottom, aft, 36-84 ft.	132 ✓	406 ✓	Fore peak tank,	35 ✓	136 S.W. ✓
Double bottom, under Engines and Boilers, 84-114	32.5 ✓	694 ✓	After peak tank,	30 ✓	228 ✓
Double bottom, if under Engines only, 114-134	20.0 ✓	455 ✓	Deep tank, aft, F.W. 39-57 1/2 in way Nº 5 Hold	51 ✓	154 F.W. ✓
Double bottom, if under Boilers only,			Deep tank, forward, of Nº 4 hold 59-84 ft.	68.75 ✓	436 @ 90 S.W. ✓
Double bottom, forward, 135-236	258 ✓	1134 ✓	Other tanks, if fitted, for H.S. O.F. deep tanks 134-155	57.75 ✓	1277 " " ✓
Total capacity of double bottom		2689 ✓	(If necessary, furnish further information by sketch.)		

* The wells are not to be included in the lengths of the tanks (See Circular No. 1284).

Order for Special Survey No. 539

Date 22.3.37

Dates of Surveys held while building

1937
May 10. 11. June 4. 8. 15. 30. July 1. 8. 13. 14. 20. 22. 26. 27. Aug 3. 13. 20. 23. 26. 30. Sep 2. 8. 14. 15. 21. 23. 24. 28. 29. 30.
Oct 4. 5. 7. 11. 13. 18. 19. 21. 22. 25. 26. 27. Nov 2. 3. 4. 5. 9. 10. 11. 13. 15. 16. 17. 22. 25. 26. 30. Dec 1. 6. 8. 10. 13. 21. 22. 29.
30. 1938
Jan 5. 6. 10. 12. 13. 18. 19. 20. 21. 24. 25. 27. 31. Feb 1. 2. 4. 7. 8. 9. 10. 11. 13. 14. 15. 16. 17. 18. 19. 21. 22.
23. 24. 25. 28. March 3. 7. 8. 10. 11. 15. 16. 17. 21. 22. 23. 25. 28. 30. Apr 1. 4. 5. 6. 8. 11. 12. 13. 14. 20. 22. 25. 26. 27. 28.
29. May 2. 3. 5. 6. 9. 11. 12. 13. 17. 18. 20. 23. 24. 26. 27. 30. June 2. 3. 7. 9. 10. 13. 14. 15. 16. 27. 30. July 1. 4. 6. 8. 12.
15. 19. 21. 22. 27. 28. Aug 5. 10. 12. 16. 19. 24. 26. Sep 12. 14. 16. 20. 21. 22. 27. 28. 29. 30. Oct 4. 5. 6. 12. 18. 21.
24. 25. 27. Nov 1. 4. 8. 11. 14. 28. 29. Dec 1. 5. 6. 9. 12. 13. 14. 16. 19. 21. 28. 30. 1939
Jan 3. 4. 5. 6. 9. 10. 11. 13. 14. 16.
17. 18. 19. 20. 26. 27. 28.

Total No. of Visits 233