

STEEL STEAMER ~~SHIP~~ MOTORSHIP

AUG 31

Received at London Office

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 27th AUGUST 1938.

Port of GREENOCK

No. 20614.

Survey held at PORT GLASGOW.

Date First Survey 13th AUGUST 1938.

Last Survey

18th AUGUST 1938

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

STEEL SINGLE SCREW STEAMER "SCIENTIST"

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

FULL SCANTLING

State Type of Erections POOP, BRIDGE, ETC

TONNAGE under 5721.99
Tonnage Deck...CLASS $\times 100 A.1$. State if with freeboard as condition of Class

No

Built at PORT GLASGOW.

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

435

Launched May 30th 1938 Yard No. 911

Total

Breadth (greatest moulded)

B

56.25

Builders LITHGOWS LIMITED

Gross Tonnage 6198.69

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

D

32.16

Owners THE GARENTE STEAMSHIP CO LTD

Register Tonnage 3794.21

1st Longitudinal Number (L x D) = 13989.60

Managers T & J HARRISON.

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

2nd Numeral L x (B + D) = 38458.35

Residence LIVERPOOL

REGISTERED DIMENSIONS.
FEET.

Length

438.7

Breadth

56.45

Depth

29.65

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

17.50

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

13.52

Port of Registry LIVERPOOL.

Do. Long Bridge to top of keel

10.84

If surveyed while building, afloat, or in dry dock

Draught Moulded

25-9/2

BUILDING, Afloat & IN DRY DOCK.

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"	<input checked="" type="checkbox"/>	Bracket Floors, Frame	BA. 8 x 3 1/2 x .35	<input checked="" type="checkbox"/>
" " from 3/8 length amidships to Collision bulkhead	27	<input checked="" type="checkbox"/>	" " Reversed Frame	BA. 7 x 3 x .39	<input checked="" type="checkbox"/>
" " in peaks	24	<input checked="" type="checkbox"/>	" " Vertical Struts	BA 7 x 3 x .39	<input checked="" type="checkbox"/>
SIDE FRAMING.			Centre Girder, depth and thickness amidships	CHANNEL 11 x 3 1/2 x 3/8 x .46	<input checked="" type="checkbox"/>
Frame Amidships, Angle, E or F	10 3/2 .42	<input checked="" type="checkbox"/>	" " top Angles	3 1/2 3 1/2 .52	<input checked="" type="checkbox"/>
" " Extends up to	SECOND DECK.	<input checked="" type="checkbox"/>	" " bottom Angles	4 4 .58	<input checked="" type="checkbox"/>
Reversed Frame Amidships, Angle	<input checked="" type="checkbox"/>		Side Girders, No. each side and thickness	ONE @ .39.	
" " Extends up to	<input checked="" type="checkbox"/>		Margin Plate depth (excl. of flange) and thickness	37.52	
Depth of Framing Girder	10	<input checked="" type="checkbox"/>	" " Vertical Angle to Tank side	3 1/2 3 1/2 .42	
Frames in Uppermost Continuous 'tween Decks, Angle, E or F	8 3 1/2 .36	<input checked="" type="checkbox"/>	Bracket abaft 1/4 len. from stem	3 1/2 3 1/2 .42	
" " Second 'tween Decks, Angle, E or F	<input checked="" type="checkbox"/>		" " Vertical Angle to Tank side	3 1/2 3 1/2 .42	
" " Third " " " "	<input checked="" type="checkbox"/>		Bracket from forward 1/4 len. from stem to Panting Area	3 1/2 3 1/2 .42	
" " from 1/4 len. for'd. to 15% len. from Stem	11 x 3 1/2 x .42 BA And 11 x 3 1/2 x .48 BA	<input checked="" type="checkbox"/>	Gussets, spacing and scantling abaft 1/4 len. from stem	39 EVERY FRAME 6-7/8 RIVETS	
" " in Peaks, Angle or F	8 3 1/2 .38	<input checked="" type="checkbox"/>	" " Gussets, spacing and scantling from forward 1/4 len. from stem to Panting Area	40 EVERY FRAME 7-7/8 RIVETS	
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	7/8 SPACED 6 1/4	<input checked="" type="checkbox"/>	Tank Side Brackets, height above base line at toe of Frame and thickness	67" x .45	
State if Frame Joggled	YES, EXCEPT AT ENDS.	<input checked="" type="checkbox"/>	INNER BOTTOM PLATING.		
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and as approved?	YES.	<input checked="" type="checkbox"/>	Breadth and thickness of Middle Line Strake	52 x .50	<input checked="" type="checkbox"/>
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and as approved?	YES.	<input checked="" type="checkbox"/>	Thickness of remainder in Holds	41 - .37.	<input checked="" type="checkbox"/>
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and as approved?	YES.	<input checked="" type="checkbox"/>	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.	<input checked="" type="checkbox"/>
INGLE BOTTOM.			BEAMS.		
Floors, Depth and thickness at mid-line in Holds			Uppermost Continuous Deck, amidships in Wells, Angle, E or F	8 3 1/2 .42	<input checked="" type="checkbox"/>
Height of Brackets at side above base line at toe of frame			" " in way of Bridge, Angle, E or F	8 3 1/2 .51-49	<input checked="" type="checkbox"/>
Middle Line Keelson, on Floors, Angles, E or F			Spacing	27"	
" " Through Plate or Intercoastal Plate			Second Deck, amidships, Angle, E or F	8 x 3 1/2 x 3/2 .42 12 x 3 1/2 x 3/2 .54	<input checked="" type="checkbox"/>
" " Foundation Plate on Floors			Spacing	27" x 54"	<input checked="" type="checkbox"/>
" " Flat Plate Keel Angles			Third Deck, amidships, Angle, E or F		
Side Keelsons, No. each side			Spacing		
" " thickness of Intercoastal Plate			Fourth Deck, amidships, Angle, E or F		
" " Angles			Spacing		
DOUBLE BOTTOM.			Poop Deck, Angle, E or F	6 3 .41	<input checked="" type="checkbox"/>
Solid Floors, thickness and spacing	39 EVERY 3 RD FRAME	<input checked="" type="checkbox"/>	Spacing	27	<input checked="" type="checkbox"/>
" " Are Frame and Reversed Frame joggled?	YES	<input checked="" type="checkbox"/>	Bridge Deck, Angle, E or F	8 3 .35	<input checked="" type="checkbox"/>
Bracket Floors, breadth and thickness at middle line	3-9" x .39	<input checked="" type="checkbox"/>	Spacing	27"	<input checked="" type="checkbox"/>
" " breadth and thickness at margin plate	2-9" x .39	<input checked="" type="checkbox"/>	Forecastle Deck, Angle, E or F	8 3 .35	<input checked="" type="checkbox"/>
			Spacing	27"	<input checked="" type="checkbox"/>

PILLARS AND DECKS.

	INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
PILLARS, No. of Rows.....	TWO ROWS OF	
" in 'tween Decks, Size and Spacing.....	WIDELY SPACED PILLARS	
" " " " "	GIRDERS IN HOLDS	
" in Holds " "	TWEEN DECKS AS	
" " " " "	APPROVED ✓	
Centre Line Bulkhead.		
Stiffeners and Spacing.....	NONE ✓	
Plating, thickness of	✓	
STRINGERS AND DECKS.		
Uppermost Continuous Deck.		
Stringer Plate, breadth and thickness in Wells	60 x 1-04 ✓	
" " " " in way of Bridge	60 x .40 ✓	
" Angle in Wells	77 x 93 to 6 x 72 ✓	
Thickness of Plating abreast Deck openings) in way of Wells .....	.68 ✓	
Thickness of Plating abreast Deck openings) in way of Bridge .....	.36 ✓	
Thickness of Plating within line of openings...	.44 - .34. ✓	
If Sheathed, material and thickness	NOT SHEATHED ✓	
Second Deck.		
Stringer Plate, breadth and thickness in Wells...	48 x .44. ✓	
Stringer Plate, breadth and thickness in way) of Bridge	48 x .44. ✓	
Thickness of Plating abreast Deck openings) in way of Wells .....	.40 ✓	
Thickness of Plating abreast Deck openings) in way of Bridge .....	.36 ✓	
Thickness of Plating within line of openings...	.40 - .36 ✓	
If Sheathed, material and thickness	NOT SHEATHED. ✓	
Third Deck.		
Stringer Plate, breadth and thickness.....	✓	
If Plated, state thickness.....	✓	
Fourth Deck.		
Stringer Plate, breadth and thickness.....	✓	
If Plated, state thickness	✓	
Poop Deck.		
Stringer Plate, breadth and thickness	37 x .36 ✓	
Plating, Sheathing, material and thickness ...	.30 COVERED WITH BITUMASTIC DR COVERING 2" THICK ✓	
Bridge Deck.		
Stringer Plate, breadth and thickness.....	64 x .50 ✓	
Plating, Sheathing, material and thickness ...	.44 NOT SHEATHED. ✓	
Forecastle Deck.		
Stringer Plate, breadth and thickness.....	35 x .36 ✓	
Plating, Sheathing, material and thickness ...	.34 SHEATHED UNDER WINDLASS ONLY. ✓	

SHELL PLATING.

SCANTLINGS.					RIVETING.							
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES. State if joggled? No			BUTTS.			
	AMIDSHIPS.		FORWARD.	AFT.		SINGLE OR DOUBLE.	RIVETS.		No. OF ROWS OF RIVETS.	RIVETS.		STRAPPED OR LAPPED.
	Breadth.	Thickness.	Thickness.	Thickness.			Diam.	Spacing or. to or.		Diam.	Spacing or. to or.	
	Inches.	Inches.	Inches.	Inches.			Inches.	Inches.		Inches.	Inches.	
FLAT PLATE KEEL	51	.82 ✓	.72 ✓	.72 ✓		DOUBLE	1	3 1/4 ✓	FOUR.	1"	4 ✓	LAPPED
" DECK (if any)	THREE STRAKES OF BOTTOM SHELL PLAS FROM 1/2 LENGTH TO COLLISION B ^{HP} - .70" ✓											
BOTTOM PLATING, No. of of Strakes .. FOUR ..)		.62 ✓	.48 ✓	.50 ✓		DOUBLE	7/8	3 3/8 ✓	FOUR	7/8	3 1/2 ✓	LAPPED
BILGE PLATING, No. of Strakes ONE ..)		.62 ✓	.48 ✓	.50 ✓	* BUTTS WELDED & TREBLE RIVETED INSIDE BUTT STRAPS. FITTED AMIDSHIPS ON STRAKE ABOVE BILGE. ✓	DOUBLE	7/8	3 3/8 ✓	FOUR	7/8	3 1/2 ✓	-D-
SIDE PLATING, No. of Strakes THREE ..)		.62 ✓	.46 ✓	.46 ✓		DOUBLE	7/8	3 3/8 ✓	THREE *	7/8	3 1/8 ✓	-D-
UPPER DECK, Sheer- strake in Wells.....)	62	.93 ✓	.46 ✓	.46 ✓		DOUBLE	1	3 1/4 ✓	FIVE	1"	4 1/2 ✓	-D-
UPPER DECK, Sheer- strake in Bridge ...)	62	.61 ✓				DOUBLE	7/8	3 3/8 ✓	THREE	7/8	3 1/8 ✓	-D-
STRAKE BELOW Sheer- strake in Wells.....)	78	.76 ✓	.46 ✓	.46 ✓		DOUBLE	7/8	3 3/8 ✓	FOUR	1	4 ✓	-D-
STRAKE BELOW Sheer- strake in Bridge ...)	78	.61 ✓				DOUBLE	7/8	3 3/8 ✓	THREE	7/8	3 1/8 ✓	-D-
POOP SIDE PLATING .....				.40 ✓		SINGLE	7/8	3 3/8 ✓	ONE	7/8	3 1/8 ✓	-D-
BRIDGE SIDE PLATING ...		.61 ✓				DOUBLE	7/8	3 3/8 ✓	FOUR	7/8	3 1/2 ✓	-D-
FOREC'TLE SIDE PLATING			.42 ✓			SINGLE	7/8	3 3/8 ✓	ONE	7/8	3 1/8 ✓	-D-

WATERTIGHT BULKHEADS.

FORGINGS and CASTINGS.

STIFFENERS.					
Plating Thickness.	VERTICAL.		HORIZONTAL.		
	Scantlings.	Spacing.	Scantlings.	Spacing.	
MIDSHIP BULK'D, Upper tween decks	28-26	6x3x.3	BA	29½	✓ ✓
" " "					
" " "					
" " Holds	122	41-30	11x3½x.42 BA	30"	✓
COLLISION " (in Hold)	52-21	10x3½x.40 BA	24"	W.T. FLAT AND SEMI BOX BEAM.	✓
AFTER PEAK " "	75-30	7x3x.33 BA	24"	TUNNEL RECESS.	✓

STEEL.

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture)

COLVILLES, STEEL CO OF SCOTLAND, LANARKSHIRE.

Has the Steel been tested as required by the Rules? YES. ✓

OPEN HEARTH

Lloyd's Register
Foundation

AUG 31 1938

EQUIPMENT No 40275

LETTER at

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.				
97236	1st Bower ...	65	0	21	STOCKLESS			51	2	2	0	3@ 64.83	HALLS LATEST IMPROVED HINGLEY & SONS LTD	NEHERTON	3/3/38 RELF
97240	2nd " ...	65	0	0	✓			51	0	0	0		"	-Do-	" 3/3/38 " ✓
97239	3rd " ...	64	3	14	✓								"	-Do-	" 3/3/38 " ✓
	Collective weight.	195	0	7	✓							194.50			
97243	Stream	19	0	14	✓	3	26	19	19	2	21	19	ORDY FGD WROT IRON	H HINGLEY & SONS LTD	NEHERTON 3/3/38 RELF ✓

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.	Owts.	Length.	Diam.					Length.	Cir.		Length.	Cir.
89081	135	2 5/16	9 1/4	13 3/4	362.0.9	720 3/4		270	2 5/16	STUD LINK	N. HINGLEY & SONS LTD	NEHERTON 1 1/4/38 RELF	TOWLINE...	120	4 3/4	64.6	120	4 3/4
89085	135	2 5/16	9 1/4	13 3/4	362.1.0						-Do-	" 1 1/4/38 RELF.	HAWERS & WARPS	2@90	2 3/4	15.2	2@90	2 3/4
					724.1.9									2@90	3	18.6	2@90	2 1/2
Iron Stream	30	5			52.8			90	5									
Steel Wire																		

Steering Gear, Type (Power or hand) BROWN BROS & CO, PATENT STEAM TILLER. Alternative Means of Steering COMBINED FRICTION DRIVE WHEEL ON POOP DECK

Steering Chains (Size and Test) ✓ Windlass STEAM BY CLARKE CHAPMAN Boats 2-24' LIFEBOATS. 2-28' LIFEBOATS.

Ceiling in Holds, thickness and material 2 1/2" B.P. UNDER HATCHES & OVER LIMBERS Cargo Battens, thickness, material and spacing 6x2" W.P. SPACED 9" ✓

Cargo Hatchways.—(Upper Deck) COAMING 30" HIGH FITTED WITH REITH PATENT Thickness of Hatches 3" W.P. FITTED WITH 3/8" STEEL STRIPS AT ENDS.

Size of Hatchways No. 1 (Fwd.) 22'-6" x 17'-0" No. 2 33'-9" x 17'-0" No. 3 11'-3" x 17'-0" No. 4 11'-3" x 17'-0" No. 5 31'-6" x 17'-0" No. 6 18'-0" x 17'-0"

Number of Shifting Beams and for Fore and Afters } NO 1-4 : NO 2-6 : NO 344-1 : NO 5-6 : NO 6-3.

Builder's Signature

FOR LITHGOWS LIMITED

R. Campbell

GENERAL DECLARATION. It should be stated (a) whether the vessel (if not a motorship) is fitted for the carriage and burning of oil used as fuel No. (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 (where required to be inserted in the Notation).

This vessel has been built in accordance with the approved plans and in general conformity with the Society's Rules for the class contemplated. ✓

The materials & workmanship are of good quality. ✓

All the double bottom tanks, deep tank and the fore & aft peak tanks have been tested as required by the rules & found satisfactory. ✓

The weather decks & watertight bulkheads were hose tested & found satisfactory. ✓

The freeboard has been verified & the marks cut in on the vessels sides.

The amount of Entry Fee £ 10 : 0 : 0 Fees applied for, 22nd AUG. 1938.
Special Survey Fee.... £ 354 : 19 : 6 Received by me, 26th AUG. 1938.
FREEBOARD 17 : 8 : 0.
Travelling Expenses, if any :

State whether the Vessel has been built under Special Survey YES. ✓

Certificate to be sent to GREENOCK OFFICE Date of issue 17/9/38

Committee's Minute GLASGOW 30 AUG 1938

Character assigned + 100A1

Lloyds A+C.P.

subject.

+ Enc 8. 38.

(Special notations, where part of class, to be stated.)

I am of opinion the Vessel should be Classed + 100 A.1. ✓
Subject to the hand steering gear being repaired & tested before the vessel proceeds on her voyage from Liverpool.

Signature R. Campbell
Surveyor to Lloyd's Register of Shipping.

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.)

Damage
During the voyage from Glasgow to the tail of the Bank the hand steering gear jammed and a few teeth of the hand steering gear quadrant were broken & also the spindle of the hand wheel on the pedestal bent.

As the vessel was urgently required to complete her loading at Liverpool the vessel proceeded to Liverpool after the trial and a temporary arrangement for secondary means of steering worked from the after winch was fitted up for the voyage to Liverpool.

The Gunners Superintendent stated that the vessel would be 10 days in Liverpool & that the gear would be dismantled, overhauled & tested by the makers before the vessel proceeded on her ultimate voyage.

The Liverpool surveyors were thereupon informed and a copy of the letter is herewith attached.

PARTICULARS OF ELECTRIC WELDING (if employed) Hold pillars welded top & bottom. Lifting brackets above hold pillars welded, corner bars at tank ends & at bulkheads, midship shell butts on strake above bilge welded flush & teble rivetted butts fitted inside.

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

Particulars of Drop Test of Cast Steel Anchors viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	Wt. Inc. Pins.	
	1st Bower	41.2.13. ✓ N.S.: 1780 : 2.11.37.
	2nd "	41.3.9. ✓ N.S.: 1776 : 27.10.37.
	3rd "	41.2.11. ✓ N.S.: 1747 : 1.10.37.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 47.25 ft., R.Q.D. ✓ ft., Bridge 144 ft., Forecastle 43 ft.

(in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated ✓

Official No. 166,247.

Signal Letters

Extreme Breadth over Belting (Circ. 1611) ✓

Over-all Length 452.92 ✓ (Circ. 1703)

No. and Material of Decks 2 DKS.

Parts of Bottom of Vessel coated with cement ~~approved composition~~ YES ✓

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.		Water Capacity.	Where Fitted.	Length.		Water Capacity.	
	Feet.	Tons.			Feet.	Tons.		
Double bottom, aft,	121.5	287	Fore peak tank,	33.75	71	✓		
Double bottom, under Engines and Boilers,	67.5	320					62	✓
Double bottom, if under Engines only,	✓	✓					722	✓
Double bottom, if under Boilers only,	175.5	590	Deep tank, aft,	33.75	722	✓		
Double bottom, forward,	364.5	1197	Deep tank, forward,					
Total length (if continuous) and Capacity			Other tanks, if fitted,					
			(If necessary, furnish further information by sketch.)					

Order for Special Survey No. 3418.

Date 22ND JUNE 1934.

Dates of Surveys held while building

(1934) Aug. 13. Oct. 11. 14. 28. Nov. 3. 8. 15. 14. 24. 29. DEC. 2. 9. 16. 24. 27. 30. (1935) JAN. 1. 10. 14. 14. 18. 19. 20. 21. 25. 26. 27. 28. FEB. 1. 2. 4. 14. 15. 21. 23. MAR. 1. 4. 8. 9. 16. 22. 23. 24. 28. 29. APRIL 1. 5. 6. 7. 8. 13. 14. 15. 16. 18. 20. 22. 25. 27. 28. MAY 3. 4. 5. 6. 9. 10. 11. 12. 13. 14. 19. 20. 23. 25. 26. JUNE 14. 29. JULY 19. AUG. 5. 11. 14. 18.

Total No. of Visits 82.