

STEEL STEAMER or MOTORSHIP.

Received at London Office... MAR -1 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 23 February 1939. Port of Greenock. No. 20403.

Survey held at Greenock Date First Survey 30th MARCH 1938. Last Survey 22nd FEBRUARY 1939.

On the (State if Machinery fitted Aft and if Single, Twin or Triple Screw) Twin Sc. Sr. "CLAN FRASER" Mch. amids.

State Type (Full Scantling, Complete Superstructure with or without Tonnage Openings) Comp. Super. with tonnage opening aft. State Type of Erections P. Br. o Sil. on Super. Deck.

TONNAGE under Tonnage Deck... 1321.00 CLASS 100 A1. State if with freeboard as condition of Class YES. Built at Greenock.

Do. of space or spaces between Tonnage Dk. and Upper Dk. Length from fore part of stem to after part of stern } L 457.55

Total 6321.00 Breadth (greatest moulded) } B 62.75

Gross Tonnage 7529.34 Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c) } D 40.75

Register Tonnage 3524.04 1st Longitudinal Number (L x D) = 18693

REGISTERED DIMENSIONS. FEET. 2nd Numeral L x (B + D) = 47655

Length 463.7 Framing Depth "d," at middle of length. See Sec. 3 (1d) } 18.58

Breadth 63.0 Proportions—Depth to Length—Uppermost continuous deck to top of keel } 11.32

Depth 29.9 Draught Moulded } 28.1 7/8

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	7 3/4 34	✓
" " from 3/4 length amidships to Collision bulkhead.....	27	✓	" " Reversed Frame.....	7 3 35	6 1/2 x 3 x 35
" " in peaks.....	24	✓	" " Vertical Struts { 1. 7 3 35 6 1/2 x 3 x 35		
" " AFT FRAMES 9-15	30	✓	" " { 2. 8 x 3 1/2 x 3 1/2 1/2 8 x 3 1/2 x 42 1/2		
SIDE FRAMING.			Centre Girder, depth and thickness amidships	46 57	✓
Frame Amidships, Angle, E or F.....	12 3 1/2 50	12 x 3 1/2 x 46	" " top Angles.....	3 1/2 3 1/2 51	✓
" " Extends up to.....	3rd DECK.	✓	" " bottom Angles.....	5 5 57	✓
Reversed Frame Amidships, Angle	✓		Side Girders, No. each side and thickness	1 @ 60	✓
" " Extends up to.....	✓		Margin Plate depth (excl. of flange) and thickness.....	40 60	40 x 57
Depth of Framing Girder	DOUBLE ANGLE.	✓	" " Vertical Angle to Tank side Bracket abaft 1/4 len. from stem.....	6 6 48	✓
Frames in Uppermost Continuous 'tween Decks, Angle, E or F	8 1/2 3 1/2 43	✓	" " Vertical Angle to Tank side Bracket from forward 1/4 len. from stem.....	6 6 48	DOUBLE.
" " Second 'tween Decks, Angle, E or F.....	8 1/2 3 1/2 43	✓	" " Gussets, spacing and scantling abaft 1/4 len. from stem.....	21-7/8 MIN. AT FLAT TANK.	✓
" " BRIDGE. " " ANGLE.....	4 3 1/2 50	4 x 3 1/2 x 36	" " Gussets, spacing and scantling from forward 1/4 len. from stem to Panting Area.....	CONTINUOUS PLT. 48 IN. WAY OF O.F. DOUBLE ROTT.	✓
" " from 1/4 len. for'd. to 15% len. from Stem.....	12 3 1/2 54	✓	Tank Side Brackets, height above base line at toe of Frame and thickness	7 1/2 46	✓
" " in Peaks, Angle or F.....	8 3 1/2 45	✓	INNER BOTTOM PLATING.		
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	7/8 @ 6 MIN.	✓	Breadth and thickness of Middle Line Strake ...	5 1/2 40	5 1/2 x 58
State if Frame Joggled	Yes, specific at ends of vessel.	✓	Thickness of remainder in Holds.....	7 1/2 40	2 x 3 HOLD'S.
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved?.....	Yes	✓	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?.....	56 UNDER MATCHWAYS IN LIEU OF CEILING.	✓
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved?.....	Yes	✓	BEAMS.		
SINGLE BOTTOM.			Uppermost Continuous Deck, amidships in Wells, Angle, E or F	9 3 1/2 40	✓
Floors, Depth and thickness at mid-line in Holds.....	✓		" " in way of Bridge, Angle, E or F.....	9 3 1/2 38	✓
Height of Brackets at side above base line at toe of frame.....	✓		Spacing.....	33	✓
Middle Line Keelson, on Floors, Angles, E or F	✓		Second Deck, amidships, Angle, E or F	10 3 1/2 40	✓
" " Through Plate or Intercostal Plate.....	✓		Spacing.....	33	✓
" " Foundation Plate on Floors.....	✓		Third Deck, amidships, Angle, E or F	11 3 1/2 42	✓
" " Flat Plate Keel Angles.....	✓		Spacing.....	33	✓
Side Keelsons, No. each side	✓		Fourth Deck, amidships, Angle, E or F	✓	
" " thickness of Intercostal Plate.....	✓		Spacing.....	✓	
" " Angles.....	✓		Poop Deck, Angle, E or F	6 3 36	✓
DOUBLE BOTTOM.			Spacing.....	30	✓
Solid Floors, thickness and spacing	44 @ 66	✓	Bridge Deck, Angle, E or F	7 3 38	7 x 3 x 34
" " Are Frame and Reversed Frame joggled?.....	PART JOGGLED & PART CUT AT LANDINGS.	✓	Spacing.....	33	✓
Bracket Floors, breadth and thickness at middle line	3 1/2 44	✓	Forecastle Deck, Angle, E or F	8 3 44	✓
" " breadth and thickness at margin plate.....	4 1/2 44	✓	Spacing.....	27	✓

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>2 ROWS</i>			Stringer Plate, breadth and thickness in way of Bridge	<i>63½</i>	<i>.46</i>	✓
" in 'tween Decks, Size and Spacing.....	<i>WIDE SPACED</i>			Thickness of Plating abreast Deck openings in way of Wells		<i>.42</i>	✓
" " " " "	<i>TUBULAR & BUILT</i>			Thickness of Plating abreast Deck openings in way of Bridge		<i>.42</i>	✓
" in Holds " " "	<i>PILLARS & GIRDERS</i>			Thickness of Plating within line of openings...		<i>.36</i>	✓
" " " " "	<i>AS APPROVED.</i>		✓	If Sheathed, material and thickness			✓
Centre Line Bulkhead.				Third Deck.			
Stiffeners and Spacing.....		✓		Stringer Plate, breadth and thickness.....	<i>67</i>	<i>.40</i>	✓
Plating, thickness of		✓		If Plated, state thickness.....		<i>.36</i>	✓
STRINGERS AND DECKS.				Fourth Deck.			
Uppermost Continuous Deck.				Stringer Plate, breadth and thickness.....			✓
Stringer Plate, breadth and thickness in Wells	<i>67</i>	<i>.70</i>	✓	If Plated, state thickness			✓
" " " " in way of Bridge	<i>67</i>	<i>.62</i>	✓	Poop Deck.			
" Angle in Wells	<i>6</i>	<i>.68</i>	✓	Stringer Plate, breadth and thickness		<i>.38</i>	✓
Thickness of Plating abreast Deck openings in way of Wells		<i>.55</i>	✓	Plating, Sheathing, material and thickness :..	<i>.34 WITH TEAR 2½" OVER ACCORD. AT FORE END.</i>		
Thickness of Plating abreast Deck openings in way of Bridge		<i>.62</i>	✓	Bridge Deck.			
Thickness of Plating within line of openings...		<i>.42</i>	✓	Stringer Plate, breadth and thickness.....	<i>48</i>	<i>.34</i>	✓
If Sheathed, material and thickness	<i>TEAR 2½"</i>		✓	Plating, Sheathing, material and thickness ...	<i>.30 &</i>	<i>.34</i>	✓
	<i>IN WAY OF H-3 MATCH.</i>		✓	Forecastle Deck.			
Second Deck.				Stringer Plate, breadth and thickness.....		<i>.38</i>	✓
Stringer Plate, breadth and thickness in Wells...	<i>63½</i>	<i>.46</i>	✓	Plating, Sheathing, material and thickness ...		<i>.34</i>	✓

SCANTLINGS.					RIVETING.								
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES.			No. of Rows of Rivets.	BUTTS.		STRAPPED OR LAPPED.	
	AMIDSHIPS.		FORWARD.	AFT.		State if jogged?	RIVETS.			RIVETS.			
	Breadth.	Thickness.	Thickness.	Thickness.			SINGLE OR DOUBLE.	Diam.		Spacing cr. to cr.	Diam.		Spacing cr. to cr.
	Inches.	Inches.	Inches.	Inches.			Inches.	Inches.		Inches.	Inches.		
FLAT PLATE KEEL	54	.87	.77	.77		Double	1	3 ⁶ / ₉	✓	4	1	4	✓
" IN WAY OF													
" Base (if any)	54	1.05	1.03			"	"	"	✓	"	"	"	"
DUCT KEEL.													
BOTTOM PLATING, No. } of StrakesA.....}		.68	.63	.66		"	7/8	3 ⁵ / ₁₀	✓	4-3	7/8	3 ¹ / ₂	✓
BILGE PLATING, No. of } StrakesA.....}		.68	.63	.66		"	"	"	✓	"	"	"	✓
SIDE PLATING, No. of } StrakesA.....}		.66	30.63 10.50	.50		"	"	"	✓	3	"	3 ¹ / ₈	✓
UPPER DECK, Sheer- } strake in Wells.....}	72	.75	.50	.50	75 x .75	"	"	"	✓	4-3	1	4	✓
UPPER DECK, Sheer- } strake in Bridge ...}	72	.75			75 x .75	"	"	"	✓	4	"	"	✓
STRAKE BELOW Sheer- } strake in Wells.....}	75	.72	.50	.50	81 x .70	"	"	"	✓	4-3	7/8	3 ¹ / ₂	✓
STRAKE BELOW Sheer- } strake in Bridge ...}	75	.72			81 x .70	"	"	"	✓	4	"	"	✓
POOP SIDE PLATING40			SINGLE.	"	3	✓	1	"	3 ¹ / ₈	✓
BRIDGE SIDE PLATING40				SINGLE.	3/4	3	✓	3	"	"	✓
FORECASTLE SIDE PLATING			.42			DOUBLE AT ENDS.	7/8	3	✓	1	"	"	✓

WATER-TIGHT BULKHEADS.

See R.B. 7BH (Cock BH to SH BK, 6BH to 2nd BK)

Total No. of W.T. BULKHEADS in Vessel— *9.*

Extending to Upper Deck (Sec. 3 c) *1.*

„ Deck next below *6. TO 3RD DK. 2.*

As per Rule *7. ✓*

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
HEEL, Bar	UPPER	EL. PLT. "56"	✓	
	MIDDLE	CAST SHAPED STEEL.		CARNTYNE S.C.C.I.
STEM	LOWER	ROLLED 10 3/4 x 1 1/4	✓	
STERN FRAME	Propeller Post	CAST SHAPED		STROMMENS
	Rudder POST	AS PER PLAN.	✓	VERKSTER.
Speed of Vessel		17 KNOTS.	✓	
RUDDER—Type		ORDINARY DOUBLE PLATE.		
" A x D		1168.	✓	
" Diam. of head		FORG. 16 1/2"	✓	ANTIEROLAGET NOTAL VERNSTER.
" Mainpiece at top pintle		CAST STEEL	✓	STROMMENS
" " heel		SHAPED AS	✓	VERKSTER.
" how constructed		PER PLAN.		
" double or single plate		"50"		
" coupling, vertical or				
" horizontal		HORIZONTAL.		

	Plating Thickness.	STIFFENERS.			
		VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKHEAD, Upper tween decks					
" (62) " Second "	✓	✓	✓	✓	✓
" " Third "	✓	✓	✓	✓	✓
" (57) " Holds	✓	✓	✓	✓	✓
COLLISION " (in Hold)	✓	✓	✓	✓	✓
AFTER PEAK " "	✓	✓	✓	✓	✓

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture). *Open hearth process*
The Steel Company of Scotland Ltd., The Lanarkshire Steel Co., Glasgow Ltd.,
Consolidated Iron Co., Stewart & Lloyd.
 Has the Steel been tested as required by the Rules? *Yes, ✓*

EQUIPMENT No. 19082										LETTER	ANCHORS.				
Number of Certificate.	Anchors.	WEIGHT, EX. STOCK			WEIGHT OF STOCK			TEST, PER CERTIFICATE				WEIGHT REQUIRED BY	Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.	Tested for Cwts.			
97286	1st Bower ...	82	1	14	✓	✓	✓	60	0	0	0	✓ 81 1/4 ✓	RYERS TYPE.	S. TAYLOR	NETH. 11-4-38 RELF.
97287	2nd „ ...	82	1	18	✓	✓	✓	60	0	0	0	✓ 81 1/4 ✓	“ “	“ “	“ “
97285	3rd „ ...	69	3	0	✓	✓	✓	53	12	2	0	✓ 69 1/2 ✓	“ “	“ “	“ “
	Collective weight.	234	2	4	✓	✓	✓					232			
97657	Stream	23	2	0	✓	✓	✓	23	10	0	0	✓ 23 1/2 ✓	RODGERS.	“ “	“ 6-8-38 “

CHAIN CABLES.										HAWERS AND WARPS.									
Number of Certificate.	Length and size supplied.		Test per Certificate.		WEIGHT OF CHAIN CABLE.			Length and size supplied.		Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Length and size supplied.		Breaking Test of Steel Wire.	Length and size supplied.		Breaking Test of Steel Wire.
	Length.	Diam.	Statur.	Break.	Supplied.	Per Rule.		Length.	Diam.					Length.	Ins.		Length.	Ins.	
89485	200	2 1/8	✓	✓	746-3-15	✓		130	2 1/8	STUD	S. TAYLOR	NETH. 11-11-38	TOWLINE	130	5 1/2	89-7	130	5 1/2	✓
89517	20	"	✓	✓	75-1-26	✓		300	"	LINK & SONS L ^{rs}	"	"	HAWERS & WARPS	4090	3 1/2	35-2	4090	3 1/2	✓
	380	"	✓	✓	822-1-13	✓				TRAYCO	"	"	"	4090	8	44-14	4090	8	✓
	120	4 1/4	✓	✓	68-6	✓		120	4 1/4	G.S.W. TYNE WIRE ROPE MANUF. CO.	"	"	"	4090	7	"	4090	7	✓

Steering Gear, Type (Power or hand) STEAM HYDRAULIC. 4 RAMS. Alternative Means of Steering 2 H.S. PUMPS, BY HASTIE. ✓

Steering Chains (Size and Test) NONE, TELE MOTOR CONTROL. Windlass STEAM, BY EMERSON, WALKER. Boats 5 IN N.

Ceiling in Holds, thickness and material 2 1/2 W.P. OVER LIMBERS ONLY. Cargo Battens, thickness, material and spacing 2 W.P. 9" APART IN HOLDS & TWEEN DECK. INCLUD. SHELTER TWEEN DECK. ✓

Cargo Hatchways. (Upper Deck) FORMED OF STEEL PLATES & ANGLES. Thickness of Hatches 2 7/8".

Size of Hatchways No. 1 (Fwd.) 20' 3" x 18' 0" No. 2 49' 0" x 21' 0" No. 3 22' 0" x 21' 0" No. 4 35' 9" x 21' 0" No. 5 22' 0" x 21' 0" No. 6 4' 7" x 21' 0" TONNAGE OPENING.

Number of Shifting Beams and/or Fore and Afters 3 IN N^os 1-3 & 5, 9 IN N^o 2, 7 IN N^o 4.

Builder's Signature

THE GREENOCK DOCKYARD CO. LTD.

Secretary

N^o 1 hatch on Side deck 20' 3" x 18' 0", Macanberg patent.

Shifting beams in N^os 2-3-4 & 5 upper deck hatchways T. & B. sliding type.

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 YES. ✓
(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, instructions, & printed Rules of this Society. The materials & workmanship are of good quality. All the double bottom tanks, cofferdams, duct keel, deep tank & peak tanks have been tested to Rule requirements & found satisfactory. The double bottom tanks N^os 1-2-3-3a, 4 & 5 & cross bunker (below 3rd deck) have been arranged to carry oil fuel, S.P. above 150°F, & requirements of Sec. 20 of the Rules complied with. The weather decks, W.T. bulkheads, & shaft tunnels have been tested. W.T. doors, ash shoots, bilge suction, & hand pump tested & found satisfactory. Subboard overlaid, & the marks cut in on vessel's sides. A duct keel is arranged from forward end of boiler room to after end of N^o 1 hold. ✓
Echo sounding device (Simons) fitted at forward end of duct keel, no opening in shell plating.

The amount of Entry Fee £ 10 : 0 : 0

Fees applied for,

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

Special Survey Fee £ 388 : 4 : 6

24th FEB. 1939

FREEBOARD 18 : 0 : 0

Received by me,

I am of opinion the Vessel should be Classed

Travelling Expenses, if any £

4. 3 19. 39

WITH FREEBOARD

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

Signature

H. L. Swinton.

Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to GRK OFFICE. Date of issue

Committee's Minute GLASGOW 28 FEB 1939

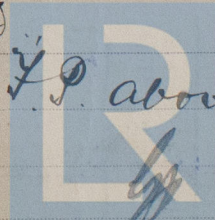
Character assigned F 100 A 1 2.39

with freeboard

Lloyd's Assoc

F 100 A 1 2.39

Fitted for oil fuel 2.39



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Lloyd's Register Foundation

W374-0049(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.)

Plans forwarded as per separate list attached.

Sister Vessel (with modifications) to:

'Clan Cameron'	Gr. 1 st L. Reg. No.	20312.
'Clan Chattan'	"	20405.
'Clan Cumming'	"	20485.
'Clan Buchanan'	"	20514.
'Clan Forbes'	"	20662.

PARTICULARS OF ELECTRIC WELDING (if employed) Pillar heads & heels. Fore & aft brackets at pillar heads.

Seams & butts of engine seat tank top plates. Frame collars at tank margin in engine space. Tunnel flat, after peak flat, oil fuel bunker flat, deep tank top, & recess bulkhead flat of to 62. Continuous gusset plate to tank top in holds & oil fuel bunker. Seams of lower deck plating at O.F. bunker where single riveted. Butts of upper dk. stringer angles. Butts of rudder plates. Corners of tunnel plating. Cement bars in lower dk. Sundry items throughout vessel.

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

Duct keel forward of Mch. space. ✓
Fitted for oil fuel 2-39. F.P. above 150° F.
D.F. E.S.D. / G.P.C. Cruiser stern.

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

1st Bower	50-2-13	INC. MINS.	W.H.	6700,	14-5-37,	(ANTWIRP.)
2nd "	50-2-7	"	W.H.	6699,	14-5-37,	"
3rd "	44-0-17	"	J.F.R.	2681,	10-9-37,	"

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 30.5 ft., R.Q.D. ✓ ft., Bridge 102.5 ft., Forecastle 69 ft. (in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated ✓

Official No. 165960. Signal Letters Extreme Breadth over Belting ✓ (Circ. 1611) Over-all Length 487.6 ft. ✓ (Circ. 1703)
No. and Material of Decks 2 Bks. & shelter dk. ✓
Parts of Bottom of Vessel coated with cement or approved composition Cement in peaks, bilges, double bottom tanks in Mch. space, & duct keel. Elsewhere coated with boiled oil. ✓ J.F. Cow
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.)

SALT			SALT		
Where Fitted.	Length. Feet.	Water Capacity. Tons.	Where Fitted.	Length. Feet.	Water Capacity. Tons.
Double bottom, aft,	O.F.	118.5	236 ✓	Fore peak tank,	68 ✓
Double bottom, under Engines and Boilers,	F.W.	90.75	415 ✓	After peak tank,	126 ✓
Double bottom, if under Engines only,			✓	Deep tank, aft,	
Double bottom, if under Boilers only,			✓	Deep tank, forward,	30.25 1076 ✓
Double bottom, forward,	O.F.	186.25	615 ✓	Other tanks, if fitted,	
Total length (if continuous) and Capacity		292.5	1266 ✓	(If necessary, furnish further information by sketch.)	

Order for Special Survey No. 3405.

Date 24th NOVEMBER 1936

Dates of Surveys held while building

(1938) MAR. 30. APRIL 1-8-15-19-22-26-28. MAY 2-9-13-14-20-24-26-30. JUNE 2-4-10-14-14-22-24. JULY 13-19-21-26-29. AUG. 1-9-15-18-23-31. SEPT. 13-15-20-22-28-30. OCT. 3-5-4-11-13-14-19-24-25-24-31. NOV. 1-3-8-9-11-15-18-22-28. DEC. 2-5-4-9-13-15-19-20-22-28-30. (1939) JAN. 9-12-13-14-20-23-24-26-30. FEB. 1-4-9-13-14-16-14-18-20-22.

Total No. of Visits 00