

## STEEL STEAMER or MOTORSHIP.

27 NOV 1929

Received at London Office

State if Report has been sent on the Freeboard of the Vessel YESState if Report is sent on the Machinery of the Vessel YESDate of completion of report 22 November 1929 Port of Greenock No. 19124  
Survey held at Port Glasgow Date First Survey 12<sup>th</sup> April 1929 Last Survey 22<sup>nd</sup> November 1929On the (State if Machinery fitted Aft and (if Single, Twin or Triple Screw) Sing. Sc. Royal Research Ship "DISCOVERY II"State Type (Full Scantling, Complete Superstructure with or without Tonnage Openings) Full Scantling State Type of Erections File & R.P.D.TONNAGE under Tonnage Deck... 860.75 CLASS 100A1 State if with freeboard as condition of Class NO Built at Port GlasgowDo. 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 220 Launched 2<sup>nd</sup> Nov. 1929 Yard No. 295Total 860.75 Breadth (greatest moulded) B 36 Builders Serguson Bros. (Ply.) Ltd.Gross Tonnage 1036.21 Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c) D 20 Owners Government of theRegister Tonnage 343.94 1st Longitudinal Number (L x D) = 4400 Managers Ballkland Islands  
(Where necessary to be entered in Reg. Book.)REGISTERED DIMENSIONS. FEET. Framing Depth "d," at middle of length. See Sec. 3 (1d) 17.25 Residence (Per Crown Agents.)Length 221.1 Proportions—Depth to Length—Uppermost continuous deck to top of keel 11.00 Port of Registry LondonBreadth 36.25 Do. Long Bridge to top of keel 17.42 If surveyed while building, afloat, or in dry dock YesDepth 16.6 Draught Moulded 17.42

## 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.
IES, Spacing amidships	23 $\frac{1}{2}$		Bracket Floors, Frame		
" from $\frac{3}{4}$ length to Collision bulkhead	18		" " Reversed Frame		
" in peaks	23 $\frac{1}{2}$		" " Vertical Struts		
FRAMING.			Centre Girder, depth and thickness amidships	49	42
me Amidships, Angle, E or F	7 $\frac{1}{2}$ 3 37	(reflex)	" " top Angles	3 3	40
" Extends up to ...	HARPER DECK.		" " bottom Angles	3 $\frac{1}{2}$ 3 $\frac{1}{2}$	42
Reversed Frame Amidships, Angle			Side Girders, No. each side and thickness	ENG. SP. 40 SOL. SP. 42	
" " Extends up to...			Margin Plate depth (excl. of flange) and thickness	25	36
th of Framing Girder			" " Vertical Angle to Tank side Bracket abaft $\frac{1}{4}$ len. from stem	3 3	34
mes in Uppermost Continuous 'tween Decks, Angle, E or F			" " Vertical Angle to Tank side Bracket forward $\frac{1}{4}$ len. from stem	3 3	34
" Second 'tween Decks, Angle, E or F			" " Gussets, spacing and scantling abaft $\frac{1}{4}$ len. from stem		
" Third			" " Gussets, spacing and scantling forward $\frac{1}{4}$ len. from stem		
ming in Peaks, Angle or F	MIT. 5 $\frac{1}{2}$ 3 32 FOR? 6 $\frac{1}{2}$ 3 $\frac{1}{2}$ 40		Tank Side Brackets, height above base line at toe of Frame and thickness	57	34
meter and Spacing of Rivets through Frame and Shell Plating amidships	3" @ 7 DIR.		INNER BOTTOM PLATING.		
ie if Frame Joggled	YES.		Breadth and thickness of Middle Line Strake	43	38
ING ARRANGEMENTS (Sec. 7), state system and particulars	DEEP FRAMING. 1 SIDE STRINGER MIDN LINE BEAM SHELL DOUBLED FOR ICE AS APP.		Thickness of remainder in Holds		32
NGTHENING OF BOTTOM FORWARD. State Particulars	FRAMES 5" x 40 SHELL DOUBLED AS APPROVED.		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.	
LE BOTTOM.			BEAMS.		
ors, Depth and thickness at mid-line in Holds. ALL FUEL RUNNERS	23	38	Uppermost Continuous Deck, amidships in Wells, Angle, E or F	5 $\frac{1}{2}$ 3	38
Height of Brackets at side above base line at toe of frame	34	38	" " in way of Bridge, Angle, E or F	5 3	32
dle Line Keelson, on Floors, Angles, E or F			Spacing	EVERY FRAME.	
" " Through Plate or Intercostal Plate	3 OILTIGHT		Second Deck, amidships, Angle, E or F	MIT. 6 $\frac{1}{2}$ 3 46 ANGLE, FOR? 4 $\frac{1}{2}$ 3 36	
" " Foundation Plate on Floors	BULKHEADS		Spacing	ALTER FRAMES	
" " Flat Plate Keel Angle	AS PER		Third Deck, amidships, Angle, E or F	5 3	32
Keelsons, No. each side	APPROVED		Spacing	EVERY FRAME.	
" thickness of Intercostal Plate	PLANS.		Fourth Deck, amidships, Angle, E or F		
" Angles			Spacing		
LE BOTTOM. CLEAR OF O.F. RUNNERS.			Poop Deck, Angle, E or F		
d Floors, thickness and spacing	32 EVERY FR.		Spacing		
" Are Frame and Reversed Frame joggled?	YES.		Bridge Deck, Angle, E or F		
Bracket Floors, breadth and thickness at middle line			Spacing		
" breadth and thickness at margin plate			Forecastle Deck, Angle, E or F	5 $\frac{1}{2}$ 3	34
			Spacing	ALTER FRAMES	

# 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.
<b>PILLARS, No. of Rows.....</b>	2 ROWS				Stringer Plate, breadth and thickness in way of Bridge.....	18	36		
"    in 'tween Decks, Size and Spacing.....	WIDE SPACED				Thickness of Plating abreast Deck openings in way of Wells.....	10	34		
"    "    "    "    "	ANGLE PILLARS				Thickness of Plating abreast Deck openings in way of Bridge.....	20	17	30	2 @ 6x30
"    in Holds    "    "	4 GIRDEBS				Thickness of Plating within line of openings.....				
"    "    "    "    "	AS APPROVED.				DECK. If Sheathed, material and thickness.....	P.P.	22"		
<del>Centre Line Bulkhead.....</del>					<b>Third Deck.</b>				
<del>Stiffeners and Spacing.....</del>					Stringer Plate, breadth and thickness.....				
<del>Plating, thickness of.....</del>					If Plated, state thickness.....				
<b>STRINGERS AND DECKS.</b>					<b>Fourth Deck.</b>				
<b>Uppermost Continuous Deck.</b>					Stringer Plate, breadth and thickness.....				
Stringer Plate, breadth and thickness in Wells.....	15	34			If Plated, state thickness.....				

## SHELL PLATING.

SCANTLINGS.					RIVETING.				
STRAKES.	AS IN VESSEL.				EDGES. State if jogged? NO	BUTTS.			
	AMIDSHIPS.		FORWARD.	AFT.		No. OF ROWS OF RIVETS.	RIVETS.		STRAPPED OR LAPPED.
	Breadth.	Thickness.	Thickness.	Thickness.			Diam.	Spacing or to cr.	
FLAT PLATE KEEL.....	43	68	68	68	DOUBLE	2/8	3/4	3	INSIDE STRAPPED.
DBLG. (if any)									
BOTTOM PLATING, No. of Strakes.....		43	40	40	DOUBLE.	3/4	3	3-2	LAPPED.
BILGE PLATING, No. of Strakes.....					"	"	"	"	INSIDE STRAPPED.
SIDE PLATING, No. of Strakes.....		43	38	40	"	"	"	"	"
UPPER DECK, Sheer-strake in Wells.....	61 1/2	48	38	38	"	"	"	"	"
UPPER DECK, Sheer-strake in Bridge.....					"	"	"	"	"
STRAKE BELOW SHEER-strake in Wells.....	48	47	38	38	"	"	"	"	"
STRAKE BELOW SHEER-strake in Bridge.....					"	"	"	"	"
R.P.D. Peep SIDE PLATING.....				30	SHELL				DOUBLING BUTTS I.R.
BRIDGE SIDE PLATING.....					AS APPROVED.				DOUBLING BUTTS I.R.
FORECASTLE SIDE PLATING.....				30	SINGLE	3/4	3	2	INSIDE STRAPPED.

## WATERTIGHT BULKHEADS.

STIFFENERS.				
Plating Thickness.	VERTICAL.		HORIZONTAL.	
	Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKHD, Upper two decks.....				
" " Second ".....				
" " Third ".....				
" " Holds.....	34/28	P.A.	30"	
COLLISION " (in Hold).....	38/28	P.A.	24	W.T. FLAT.
AFTER PEAK ".....	60/30	P.A.	24	TUNNEL FLAT.

## FORGINGS and CASTINGS.

Casting or Forging.	Scantlings.	Maker's Name.	Any departure from approved plans to be noted.
KEEL, Bar.....	FLAT PLATE.		
STEM.....	FORGING, 9 1/2" x 28" S.W.	J.S. FORSTER.	
STERN FRAME { Propeller Post.....	" 9 1/2" x 5	"	
{ Rudder ".....	" 8 x 5	"	
RUDDER-A x D.....	UNDER 192.		
Speed of Vessel.....	13 KNOTS.		
RUDDER mainpiece at head.....	FORGING, 10 1/2" x 5 1/2"	J.S. FORSTER.	
" " heel.....	" 8 1/2" x 1 1/2"	"	
" how constructed.....	FORGED & BUILT.		
" HEAD.....	FORGING 8 1/2" DIA.		
" double or single plate coupling, vertical or horizontal.....	36		
	HORIZONTAL.		

## STEEL.

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

D. COLVILLE & SONS L<sup>d</sup>, J. DUNLOP & C<sup>o</sup> L<sup>d</sup>, LANARKSHIRE STEEL C<sup>o</sup> L<sup>d</sup>, W. DEARMORE & C<sup>o</sup> L<sup>d</sup>, STEWARTS & LLOYDS L<sup>d</sup>, ARCH. BAIRD & SON L<sup>d</sup>, SHINNINGROVE IRON WORKS, DORMAN LONG & C<sup>o</sup> L<sup>d</sup>, CONSETT IRON C<sup>o</sup> L<sup>d</sup>, AGUE STEEL & FOUNDRY C<sup>o</sup> L<sup>d</sup>.

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.)

### List of Plans:

Midship Section  
Profile & deck plans.  
Sternpost & rudder.  
Bulkheads.  
Stem  
Section in way of engine seating.  
Shell expansion.  
Riveting of shell butts.  
Cast steel quadrant & tiller.  
Pumping arrangement.  
Oil fuel pumping arrangement.

Midship section as Built.  
Profile & D.K. plan as Built.  
Forging Reports: Sternframe, Rudder frame, Stem, Quadrant.

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

1st Bower 17-3-1, K.H., 10050, 4-2-29.  
2nd " 17-3-14, K.H., 10049, 4-2-29.  
3rd " 17-2-13, K.H., 4980, 12-11-27.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 16.33 ft., R.Q.D. 16.33 ft., Bridge 13 ft., Forecastle 13 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) 1 D.K. (STEEL-W.S.) 2<sup>nd</sup> D.K. IN HOLDS.

Official No. 161322 ; Signal Letters ✓

Is bottom of Vessel coated with cement ——— if not give

particulars of composition WHOLLY CEMENTED ON BOTTOM (CLEAR OF O.F. BUNKERS) & IN PERNS.

### PARTICULARS OF WATER BALLAST.—

Where Fitted.	*Length. Feet.	Water Capacity. Tons.	Where Fitted.	*Length. Feet.	Water Capacity Tons.
Double bottom, aft,	✓	✓	Fore peak tank,	✓	34
Double bottom, under Engines and Boilers,	53	70	After peak tank,	✓	29
Double bottom, if under Engines only,	✓	✓	Deep tank, aft,	✓	✓
Double bottom, if under Boilers only,	✓	✓	Deep tank, forward,	✓	✓
Double bottom, forward,	39	30	Other tanks, if fitted,	✓	✓
Total capacity of double bottom		100	(If necessary, furnish further information by sketch.)		

\* The wells are not to be included in the lengths of the tanks.

Order for Special Survey No. 3283

Date 13-3-29

Dates of Surveys held while building

(1929) April 12-15-16-18-23-24-25-30. May 1-2-6-10-15-17-22-28-30. June 3-6-12-14-19-21-25-27-28. July 1-4-20-23-25-26. Aug. 1-8-12-14-15-19-21-23-29. Sept 3-5-10-13-17-19-24-25. Oct 1-3-4-10-15-18-21-23-25-30. Nov 1-2-5-6-7-8-11-14-15-19-21-22.

Lloyd's Register  
Foundation  
Total No. of Visits 41.