

# REPORT ON MACHINERY

No. 22770

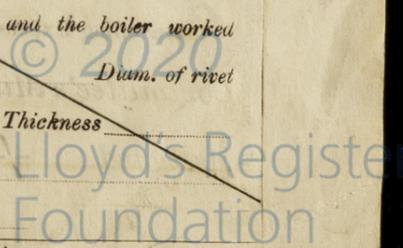
Received at London Office WED. JUN. - 4. 1913

Date of writing Report 19 When handed in at Local Office 2. 6. 19 Port of Glasgow  
 No. in Survey held at Clydebank Date, First Survey 9-12-12 Last Survey 29. 5. 1913  
 Reg. Book. on the 1/2 Clondeboye (Number of Visits 17)  
 Gross Tons 614  
 Net Tons 233  
 Master W. blint Built at Bowling By whom built Scott & Sons No. 544 When built 1913  
 Engines made at Clydebank By whom made Aitchison Blair & Co No. 82 when made 1913  
 Boilers made at Glasgow By whom made Dunsmuir & Jackson Ltd. No. 8 when made 1913  
 Registered Horse Power Owners J. Kelly Lim Port belonging to Belfast  
 Nom. Horse Power as per Section 28 113 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

**ENGINES, &c.** Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 15" 25 1/2" - 41" Length of Stroke 30" Revs. per minute 103 Dia. of Screw shaft as per rule 8.37 Material of screw shaft steel  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight  
 Is the propeller boss yes If the liner is in more than one length are the joints burned - If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes If two liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 2'-10 5/8"  
 Dia. of Tunnel shaft as per rule 7.6 Dia. of Crank shaft journals as per rule 7.99 Dia. of Crank pin 8 1/4" Size of Crank webs 11 1/4" x 5 1/2" Dia. of thrust shaft under collars 8 1/4" Dia. of screw 10'-0" Pitch of Screw 13'-6" No. of Blades 4 State whether moveable no Total surface 33.3 sq ft  
 No. of Feed pumps 2 Diameter of ditto 2 1/4" Stroke 16 1/2" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 2 Diameter of ditto 2 1/4" Stroke 16 1/2" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 2 duplex Sizes of Pumps 7"-8"x8" - 7'-4 1/2"x8" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 1 of 2" In Holds, &c. Hold 2 of 2 1/2"  
 No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump each Is a separate Donkey Suction fitted in Engine room & size yes 2"  
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible none  
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Discharge Pipes above or below the deep water line above  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes  
 What pipes are carried through the bunkers bilge How are they protected wood casing  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes  
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes  
 Dates of examination of completion of fitting of Sea Connections 7. 5. 13. of Stern Tube 7. 5. 13. Screw shaft and Propeller 7. 5. 13  
 Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door worked from

**BOILERS, &c.** (Letter for record ) Manufacturers of Steel  
 Total Heating Surface of Boilers 1938 sq ft Is Forced Draft fitted no No. and Description of Boilers one Single ended {see separate report  
 Working Pressure 180 lbs. Tested by hydraulic pressure to Date of test No. of Certificate  
 Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler  
 2 direct spring Area of each valve 5.94 sq ft Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear yes  
 Forecastle 2. 6. smallest distance between boilers or uptakes and bunkers or woodwork 6'-6" Mean dia. of boilers Length Material of shell plates  
 Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams  
 Diam. of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps  
 Percentages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell  
 Size of compensating ring plate  
**No. and Description of Furnaces in each boiler** Material Outside diameter  
 Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings  
 bottom  
 Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom  
 Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules  
 Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:  
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays  
 Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom  
 Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules  
 Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays  
 Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and  
 Thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each  
 Working pressure by rules Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked  
 separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet  
 of Visits 51 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
 stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed  
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

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**VERTICAL DONKEY BOILER—** Manufacturers of Steel

No.	Description			When made	Where fixed
Made at	By whom made				
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can enter the donkey boiler			Dia. of donkey boiler	Length
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets Plates
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

**SPARE GEAR.** State the articles supplied:— 2 top end, 2 bottom end, 2 main bearing and set of coupling bolts nuts - set of feed & bilge pump valves. Assorted iron, bolts nuts.

**MITCHISON, BLAIR LTD.**

The foregoing is a correct description,

Manufacturer.

*W. Blair* Director

Dates of Survey while building

During progress of work in shops - - -	1912 Dec. 9
During erection on board vessel - - -	1913 Jan 7, 8, 14, 29 Feb 7, 17, 25 Mar 10, 14 Apr 10 May 7, 15, 19, 23, 26
Total No. of visits	17

Is the approved plan of main boiler forwarded herewith  no  none

Is the approved plan of donkey boiler forwarded herewith  no  none

**Dates of Examination of principal parts**—Cylinders 29.1.13 Slides 29.1.13 Covers 25.2.13 Pistons 25.2.13 Rods 29.1.13

Connecting rods 25.2.13 Crank shaft 4.2.13 Thrust shaft 25.2.13 Tunnel shafts — Screw shaft 25.2.13 Propeller 10.3.13

Stern tube 29.1.13 Steam pipes tested 19.5.13 Engine and boiler seatings 7.5.13 Engines holding down bolts 23.5.13

Completion of pumping arrangements 23.5.13 Boilers fixed 23.5.13 Engines tried under steam 29.5.13

Main boiler safety valves adjusted 26.5.13 Thickness of adjusting washers PV  $\frac{15}{64}$  SV  $\frac{17}{64}$

Material of Crank shaft *steel* Identification Mark on Do. 82 HC Material of Thrust shaft *steel* Identification Mark on Do. 82 HC

Material of Tunnel shafts — Identification Marks on Do. — Material of Screw shafts *steel* Identification Marks on Do. 82 HC

Material of Steam Pipes *Copper* Test pressure 360 lbs

**General Remarks** (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under special survey in accordance with the rules and has been run working satisfactorily under steam.

This machinery is eligible in my opinion to be classed + LMC 5-13

It is submitted that this vessel is eligible for THE RECORD. + LMC 5.13.

*JWD* 5/6/13

*Harry Clarke*

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

The amount of Entry Fee	£ 2 : 0 : 0	When applied for	9.6.13
Special <i>Less Billie fee</i>	£ 16 : 19 : 9		
Donkey Boiler Fee	£ 10 : 10 : 0	When received	5/6/13
Travelling Expenses (if any)	£ : : 0		

Committee's Minute **GLASGOW 3-JUN-1913**

Assigned + LMC 5.13

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Topmasts, Y  
Rigging, M  
Sails.

*Glasgow*

Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

MINISTRY CERTIFICATE  
BRITISH 4467/13



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