

# REPORT ON MACHINERY.

No. 17229

Received at London Office

Date of writing Report 7<sup>th</sup> Dec 1917 When handed in at Local Office 22<sup>nd</sup> Dec 1917 Port of Greenwich  
 No. in Survey held at Greenwich Date, First Survey 4<sup>th</sup> Sep. 1916, Last Survey 17<sup>th</sup> Dec 1917  
 Reg. Book. on the Old Diana R.F.A. Prestol (Number of Visits) 133. Gross 2629  
 Tons Net 993

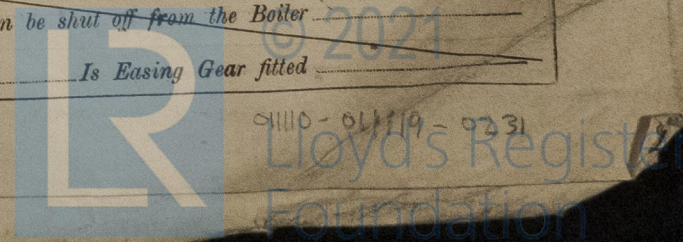
Master Capsey Built at Old Kilmahack By whom built Kapier & Miller When built 1917  
 Engines made at Greenwich By whom made John & Kincaid & Co when made 1917  
 Boilers made at Greenwich By whom made John & Kincaid & Co when made 1917  
 Registered Horse Power Owners British Admiralty Port belonging to London  
 Nom. Horse Power as per Section 28 471<sup>557</sup> Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders Three No. of Cranks Three  
 Dia. of Cylinders 26 - 42 1/2 - 70 Length of Stroke 45 Revs. per minute 100 Dia. of Screw shaft 1 1/4 as per rule 1 1/4 Material of 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  
 in the propeller boss Yes If the liner is in more than one length are the joints burned Yes 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 Yes Length of stern bush 61 7/16  
 Dia. of Tunnel shaft 13 1/8 as per rule 13 1/8 Dia. of Crank shaft journals 13 1/8 as per rule 13 1/8 Dia. of Crank pin 1 1/4 Size of Crank webs 27 1/2 x 9 1/4 Dia. of thrust shaft under  
 collars 1 1/4 Dia. of screw 15 1/8 Pitch of Screw 16:0 No. of Blades 4 State whether moveable Yes Total surface 77 sq ft  
 No. of Feed pumps 2 Diameter of ditto 12 Stroke 21 Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 1 Diameter of ditto 8 Stroke 12 Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines 1 Sizes of Pumps 11 & 12 No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 7 1/2 In Holds, &c. Three 1/2 inch from 7 inch & from 6 inch & from 5 inch

Circulating Pump 1 1/2 inch diam. 10 inch stroke Is a separate Donkey Suction fitted in Engine room & size 7 1/2  
 No. of Bilge Injections 1 sizes 1 1/2 Connected to condenser, or to circulating pump Yes Are 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 Yes  
 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 below  
 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 None How are they protected None  
 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  
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from None

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Clyde Iron Works, Glasgow  
 Total Heating Surface of Boilers 8754 sq ft Is Forced Draft fitted Yes No. and Description of Boilers Three long & 1 horizontal  
 Working Pressure 200 lb Tested by hydraulic pressure to 400 lb Date of test 4/10/17 No. of Certificate 1510  
 Can each boiler be worked separately Yes Area of fire grate in each boiler oil burning No. and Description of Safety Valves to  
 each boiler Two opening Area of each valve 11-09 sq in Pressure to which they are adjusted 205 lb Are they fitted with easing gear Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 27 Mean dia. of boilers 15:9 Length 11:9 Material of shell plates Steel  
 Thickness 1 1/8 Range of tensile strength 28-32 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams Yes  
 long. seams all up 3/4 Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 10 1/2 Lap of plates or width of butt straps 25 1/2  
 Per centages of strength of longitudinal joint 88.65 Working pressure of shell by rules 232 lb Size of manhole in shell 16 x 12  
 Size of compensating ring ring 1 1/8 No. and Description of Furnaces in each boiler 3 horizontal Material Steel Outside diameter 50 1/2  
 Length of plain part top 11 1/2 Thickness of plates bottom 1 1/8 Description of longitudinal joint butted No. of strengthening rings each  
 Working pressure of furnace by the rules 226 lb Combustion chamber plates: Material Steel Thickness: Sides 1 1/8 Back 1 1/8 Top 1 1/8 Bottom 1 1/8  
 Pitch of stays to ditto: Sides 9:8 1/2 Back 8 1/2 Top 9:8 1/2 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 211 lb  
 Material of stays Steel Area at smallest part 2.08 sq in Area supported by each stay 77.75 sq in Working pressure by rules 235 lb End plates in steam space:  
 Material Steel Thickness 1 1/8 Pitch of stays 21 1/2 How are stays secured all nut Working pressure by rules 205 lb Material of stays Steel  
 Area at smallest part 9.82 sq in Area supported by each stay 486 sq in Working pressure by rules 235 lb Material of Front plates at bottom Steel  
 Thickness 1 Material of Lower back plate Steel Thickness 1 1/8 Greatest pitch of stays 13 1/2 Working pressure of plate by rules 204 lb  
 Diameter of tubes 2 1/2 Pitch of tubes 3 1/8 Material of tube plates Steel Thickness: Front 1 Back 2 1/2 Mean pitch of stays 9 1/2  
 Pitch across wide water spaces 13 Working pressures by rules 212 lb Girders to Chamber tops: Material Steel Depth and  
 thickness of girder at centre 9:1 1/2 Length as per rule 22.52 Distance apart 8 1/2 Number and pitch of stays in each 2 in 9  
 Working pressure by rules 212 lb Steam dome: description of joint to shell None % of strength of joint None  
 Diameter None Thickness of shell plates None Material None Description of longitudinal joint None Diam. of rivet holes None  
 Pitch of rivets None Working pressure of shell by rules None Crown plates None Thickness None How stayed None  
 Tested by Hydraulic Pressure to None

SUPERHEATER. Type None Date of Approval of Plan None Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes  
 Date of Test None Pressure to which each is adjusted None Is Easing Gear fitted None  
 Diameter of Safety Valve None





IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— The lift end lock, The bottom end lock, The main bearing lock, One set coupling lock, One set feed and ridge pump valve bolts nuts, &c. The main bearing bushes. One eccentric rod & clip complete. One piston with clipper complete. One third crank clip. One slide rod complete. The propeller is as per specification.

The foregoing is a correct description,  
FOR JOHN G. KINCAID & COY., LIMITED.

Robert Greer

Manufacturer.

Dates of Survey while building { During progress of work in shops - - { 1916: Sep. 4-13-18-20-25-27. Oct. 4-6-13-17-20. Nov. 1-10-14-17-21-25-27-29. Dec. 1-8-13-20-22-26-29. (1917) Jan. 7-10-12-16-17-19-22-26-29-31. Feb. 1-5-8-13-16-20-22-23-28.  
During erection on board vessel - - - { 2-5-9-12-14-23-26-28-29-30. April 2-4-6-10-12-16-18-24-26-27-30. May 2-4-8-11-14-15-17-21-24-28-31. June 4-5-6-11-14-18-21-22-25. July 2-18-20-23-26-30. Aug. 3-7-13-14-21-23-28-30. Sep. 3-5-15-22-27. Oct. 1-4-7-10-13-17-24-30. Nov. 1-2-7-14-19-22-28-30. Dec. 3-4-5-6-7-10-11-14-17.  
Total No. of visits 133.

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 14/6/17 Slides 5/9/17 Covers 14/6/17 Pistons 5/9/17 Rods 21/6/17  
Connecting rods 3/5/17 Crank shaft 14/6/17 Thrust shaft 5/9/17 Tunnel shafts 17/10/17 Screw shaft 23/6/17 Propeller 23/6/17  
Stern tube 2/7/17 Steam pipes tested 19/11/17 & 10/2/17 Engine and boiler seatings 1/9/17 Engines holding down bolts 5/12/17  
Completion of pumping arrangements 11/12/17 Boilers fixed 5/12/17 Engines tried under steam 17/12/17  
Completion of fitting sea connections 1-9-17 Stern tube 1-9-17 Screw shaft and propeller 1-9-17  
Main boiler safety valves adjusted 11/12/17 Thickness of adjusting washers 7 3/4" 5 7/8" - 7 9/16" 5 9/16" - 7 5/16" 5 13/16".

Material of Crank shaft I Steel Identification Mark on Do. 2388 Material of Thrust shaft I Steel Identification Mark on Do. 2388  
Material of Tunnel shafts I Steel Identification Marks on Do. 2388 Material of Screw shafts I Steel Identification Marks on Do. 2388  
Material of Steam Pipes Steel Test pressure 600 lb.

Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes

Have the requirements of Section 49 of the Rules been complied with Yes

Is this machinery duplicate of a previous case If so, state name of vessel

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

The machinery and boilers of this steamer have been constructed under special survey, and placed on board in accordance with the Society's Rules. They are now in our opinion in safe working condition and the case is respectfully submitted for the satisfaction of L.M.C. 12-17. in the Register Book. Fitted for oil fuel 12.17. F.P. above 150°F.

It is submitted that  
this vessel is eligible for  
THE RECORD. + L.M.C. 12.17. F.D.  
Fitted for oil fuel 12.17. F.P. above 150°F.

The amount of Entry Fee ... £ : :  
Special ... £ 60 : :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 4/1/1918  
When received, 21-1-1918

James James + Wm. H. Copman  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 27 DEC. 1917

Assigned + L.M.C. 12.17

Fitted for oil fuel 12.17 F.P. above 150°F

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Foundation