

REPORT ON MACHINERY.

No. 17542.

Received at London Office

Date of writing Report 24th Dec 1919 When handed in at Local Office 26th Dec 1919 Port of Greenock WED. 3-DEC. 1919
No. in Survey held at Greenock Date, First Survey 20th Nov. 1918 Last Survey 25th Dec 1919
Reg. Book. on the Old Name "Dromore Castle" (Number of Visits 72)
Master G. J. Whitfield Built at Greenock By whom built Harland & Wolff Ltd Tons {Gross 5242.25
Engines made at Greenock By whom made John I. Macdonald & Co. Ltd When built 1919
Boilers made at Harrow By whom made Dumfries & Jackson when made 1919
Registered Horse Power Owners Union Castle M. S. Co. Ltd. Port belonging to London
Nom. Horse Power as per Section 28 517 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 27" - 44" - 73" Length of Stroke 48" Revs. per minute 70 Dia. of Screw shaft as per rule 14.68 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 60 1/2"
Dia. of Tunnel shaft as per rule 13.33 Dia. of Crank shaft journals as per rule 13.99 Dia. of Crank pin 14 1/2" Size of Crank webs 28.9" Dia. of thrust shaft under
collars 14 1/4" Dia. of screw 17.6" Pitch of Screw 16.6" No. of Blades 4 State whether moveable Yes Total surface 98.24 sq ft
No. of Feed pumps Two Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes
No. of Bilge pumps Two Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes
No. of Donkey Engines Two Sizes of Pumps 7" - 18" - 14" - 24" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room Two 3 1/2" In Holds, &c. Two 3 1/2" Stunnel 3 1/2"
Circulating pump separate engine.

No. of Bilge Injections Two sizes 12" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2 1/2"
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 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 both
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 Yes How are they protected Yes
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 Top of Staircase

BOILERS, &c.—(Letter for record S) Manufacturers of Steel As per Report attached hereto
Total Heating Surface of Boilers 5668 sq ft Is Forced Draft fitted Yes No. and Description of Boilers Three single ended
Working Pressure 185 lb Tested by hydraulic pressure to 360 lb Date of test 7.9.19 No. of Certificate 14810
Can each boiler be worked separately Yes Area of fire grate in each boiler 63.3 No. and Description of Safety Valves to
each boiler Two Spring Area of each valve 9.62 sq in Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 25" 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
long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
Per centages of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell
Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
Length of plain part Thickness of plates Description of longitudinal joint No. of strengthening rings
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 Area 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
Area 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 Steam dome: description of joint to shell % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed
SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to 2021
Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted Lloyd's Register
Foundation

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR:

State the articles supplied:— Two top end bolts. Two bottom end bolts. Two main bearing bolts. One set coupling bolts. One set feed pump valves. One set bilge pump valves. Propeller shaft propeller.

The foregoing is a correct description,

FOR JOHN G. KINCAID & COY., LIMITED

John G. Kincaid & Co. Ltd.

Manufacturer.

Dates of Survey while building

(During progress of work in shops -- During erection on board vessel -- Total No. of visits

(1918) Nov: 20-29 Dec: 2-5-9-20-24 (1919) Jan: 9-14-16 Feb: 10-12-25-27 Mar: 6-10-12-17-19-25-27-30 Apr: 2-7-9 May: 16-21-24-28-30 June: 5-8-13-15-21-23-26 July: 3-5-10-12-16-18 Aug: 1-5-7-11-15-19-20-25-27 Sept: 2-3-5-12 Nov: 16-17-26 Dec: 2-10-14-16-21-29 Total: 25

Is the approved plan of main boiler forwarded herewith

" " " donkey " " " "

Dates of Examination of principal parts—Cylinders 5/6/19 Slides 25/8/19 Covers 5/6/19 Pistons 25/8/19 Rods 1/8/19

Connecting rods 25/8/19 Crank shaft 12/4/19 Thrust shaft 20/8/19 Tunnel shafts 12/4/19 Screw shaft 19/8/19 Propeller 2/6/19

Stern tube 20/8/19 Steam pipes tested 16/8/19 2/10/19 Engine and boiler seatings 25/8/19 Engines holding down bolts 24/9/19

Completion of pumping arrangements 2/10/19 Boilers fixed 14/10/19 Engines tried under steam 24/10/19

Completion of fitting sea connections 20/8/19 Stern tube 27/8/19 Screw shaft and propeller 27/8/19

Main boiler safety valves adjusted 2/10/19 Thickness of adjusting washers 5 13/32 - 5 1/2 5 9/32 - 5 9/32 - 5 17/32 - 5 9/32

Material of Crank shaft 1 steel Identification Mark on Do. 540 Material of Thrust shaft 1 steel Identification Mark on Do. 540

Material of Tunnel shafts 1 steel Identification Marks on Do. 540 Material of Screw shafts 1 steel Identification Marks on Do. 540

Material of Steam Pipes 1 steel Test pressure 540 lbs

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

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

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 examined under Special Survey and found to be in accordance with the Society's Rules. They are now in my opinion in safe working condition and the case is respectfully submitted for the Certification F. D. + LMC 11. 19 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + LMC 11. 19. F.D.

J.W.D. 5/12/19 J.P.R.

The amount of Entry Fee ... £ 3 : 0 : When applied for, Special ... £ 34 : 8 : 29th Nov. 1919. Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 2/11/19 20 RBW

James James Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 2 DEC 1919

Assigned + LMC 11 19

MACHINERY CERT. WRITTEN 3. 12. 19 F.D.