

Rpt. 4.

REPORT ON MACHINERY.

No. 17305.

Date of writing Report 20 May 1918 When handed in at Local Office 29 May 1918 Port of Greenock.

Received at London Office

No. in Survey held at Campbelltown, GreenockDate, First Survey 22nd Jan'y, 1914, Last Survey 29 May 1918

Reg. Book.

on the

Steel SteamerRoquette

(Number of Visits 63.)

Master D. EvansBuilt at CampbelltownBy whom built Campbelltown & Co. Ltd.

Tons { Gross 4363.63.

Net 2461.21.

When built 1918.

Engines made at GreenockBy whom made John S. Kincaid & Co. Ltd.

when made 1918

Boilers made at GreenockBy whom made John S. Kincaid & Co. Ltd.

when made 1918

Registered Horse Power

Owners Imperial Direct Line Ltd.Port belonging to Liverpool

Nom. Hors. Power as per Section 28 322 327

Is Refrigerating Machinery fitted for cargo purposes YesIs Electric Light fitted Yes

ENGINES, &c.—Description of Engines

Triple CompoundNo. of Cylinders ThreeNo. of Cranks ThreeDia. of Cylinders 25" 40" 65"Length of Stroke 45"Revs. per minute 63Dia. of Screw shaft 1 1/2"Material of SteelIs 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 YesLength of stern bush 55"Dia. of Tunnel shaft 12 3/4"as per rule 12 3/4"Dia. of Crank shaft journals 12 9/16"as per rule 12 9/16"as fitted 15"Dia. of Crank pin 13"Size of Crank webs 19 1/2" x 8"

Dia. of thrust shaft under

collars 13"Dia. of screw 16 1/4"Pitch of Screw 17 1/2"No. of Blades 4State whether moveable YesTotal surface 85 1/2 sq ftNo. of Feed pumps TwoDiameter of ditto 4"Stroke 24"Can one be overhauled while the other is at work YesNo. of Bilge pumps TwoDiameter of ditto 4"Stroke 24"Can one be overhauled while the other is at work YesNo. of Donkey Engines ThreeSizes of Pumps 15" 10" 4" 5" 8"

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Three 3 1/2"In Holds, &c. Four 3 1/2" 1 1/2" 2 1/2"No. of Bilge Injections Two sizes 6"Connected to condenser, or to circulating pump YesIs a separate Donkey Suction fitted in Engine room & size 2 1/2"Are all the bilge suction pipes fitted with roses YesAre the roses in Engine room always accessible YesAre the sluices on Engine room bulkheads always accessible YesAre all connections with the sea direct on the skin of the ship YesAre they Valves or Cocks BothAre they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates YesAre the Discharge Pipes above or below the deep water line BelowAre they each fitted with a Discharge Valve always accessible on the plating of the vessel YesAre the Blow Off Cocks fitted with a spigot and brass covering plate Yes

What pipes are carried through the bunkers

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges YesIs the Screw Shaft Tunnel watertight YesIs it fitted with a watertight door Yesworked from Left Hand RoomBOILERS, &c.—(Letter for record 5)Manufacturers of Steel James WatsonTotal Heating Surface of Boilers 5313 1/2 Is Forced Draft fitted YesNo. and Description of Boilers Three Single EndWorking Pressure 150 lbTested by hydraulic pressure to 360 lbDate of test 14/4/18 14/4/18No. of Certificate 1334 1336Can each boiler be worked separately YesArea of fire grate in each boiler 53 9/16 sq ft

No. and Description of Safety Valves to

each boiler Two SpringArea of each valve 5.94 sq inPressure to which they are adjusted 185 lbAre they fitted with easing gear YesSmallest distance between boilers or uptakes and bunkers or woodwork 5' 0"Mean dia. of boilers 13' 6"Length 11' 0"Material of shell plates SteelThickness 1 1/2"Range of tensile strength 28-32Are the shell plates welded or flanged YesDescrip. of riveting: cir. seams DR Laplong. seams DR LapDiameter of rivet holes in long. seams 1 9/16"Pitch of rivets 8 1/2"Lap of plates or width of butt straps 17 1/2"Per centages of strength of longitudinal joint 86.6%Working pressure of shell by rules 150 lbSize of manhole in shell 16" 12"Size of compensating ring Hanged 1 1/2"No. and Description of Furnaces in each boiler 3 High PressureMaterial SteelOutside diameter 43 1/2"Length of plain part top 1 1/2" bottom 1 1/2"Thickness of plates 1 1/2"Description of longitudinal joint WeldedNo. of strengthening rings Comp.Working pressure of furnace by the rules 159 lbCombustion chamber plates: Material SteelThickness: Sides 10 1/16"Back 19 1/16"Top 19 1/16"Bottom 14 1/16"Pitch of stays to ditto: Sides 8 1/2" 8 1/2"Back 8 1/2" 8 1/2"Top 8 1/2" 8 1/2"If stays are fitted with nuts or riveted heads YesWorking pressure by rules 181 lbMaterial of stays SteelArea at smallest part 1.5 sq inArea supported by each stay 66 sq inWorking pressure by rules 182 lb

End plates in steam space:

Material SteelThickness 1 1/2"Pitch of stays 25" 18"How are stays secured WeldedWorking pressure by rules 180 lbMaterial of stays SteelArea at smallest part 8.12 sq inArea supported by each stay 450 sq inWorking pressure by rules 182 lbMaterial of Front plates at bottom SteelThickness 1"Material of Lower back plate SteelThickness 2 9/16"Greatest pitch of stays 12 1/2"Working pressure of plate by rules 186 lbDiameter of tubes 3 1/2"Pitch of tubes 4 1/2"Material of tube plates SteelThickness: Front 1"Back 1 1/2"Mean pitch of stays 7 1/2"Pitch across wide water spaces 14"Working pressures by rules 183 lbGirders to Chamber tops: Material Steel

Depth and

thickness of girder at centre 8 1/2" 1 1/2"Length as per rule 51.57Distance apart 8 1/2"Number and pitch of stays in each Yes 8 1/2"Working pressure by rules 152 lb

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

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

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 Bridge pump valves. Bolts nuts, etc. Suspension. One escape valve springs. One safety valve spring.

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

Robert Green

Surveyors

Manufacturer.

Dates of Survey while building { During progress of work in shops - - (1917) Jan: 22-31. Mar: 15. June: 14. Nov: 21-26-28-30. Dec: 3-6-13-20-25. (1918) Jan: 7-14-21-24-25-28-30. Feb: 6-13-14-19-20-22-25-27. Mar: 1-4-6-8-12-13-15-18-21-22-26-28. Apr: 2-3-5-10-11-15-16-17-19-23-24-26-27. 29. May: 1-8-13-17-20-23-27-29. Total No. of visits 63.

Is the approved plan of main boiler forwarded herewith? Yes

Dates of Examination of principal parts - Cylinders 20/5/18 Slides 7/4/18 Covers 20/5/18 Pistons 7/4/18 Rods 7/4/18 Connecting rods 7/4/18 Crank shaft 20/5/18 Thrust shaft 14/4/18 Tunnel shafts 2/4/18 Screw shaft 24/5/18 Propeller 24/5/18 Stern tube 4/5/18 Steam pipes tested 14/5/18 Engine and boiler seatings 22/5/18 Engines holding down bolts 27/4/18 Completion of pumping arrangements 20/5/18 Boilers fixed 17/5/18 Engines tried under steam 20/5/18 Completion of fitting sea connections 22/5/18 Stern tube 22/5/18 Screw shaft and propeller 15/4/18 Main boiler safety valves adjusted 20/5/18 Thickness of adjusting washers 3rd 5 29/64 - 2 4/16 32/64 - 2 4/16 5 29/64 Material of Crank shaft Steel Identification Mark on Do. 9275 Material of Thrust shaft Steel Identification Mark on Do. 9265 Material of Tunnel shafts Steel Identification Marks on Do. 9275 Material of Screw shafts Steel Identification Marks on Do. 9265 Material of Steam Pipes Iron 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.?

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 constructed under special survey and placed on board 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 Intimation + LMC 5. 18. in the Register Book. also to carry steel oil at 150° in Ballast Tanks (double bottom).

The requirements for carrying oil at 150° in double bottom have been complied with.

It is submitted that this vessel is eligible for THE RECORD + LMC 5-18.

The amount of Entry Fee ... £ 5 : 0 : 0 When applied for, Special ... £ 12 : 12 : 29th May 1918. Donkey Boiler Fee ... £ : : : When received, Travelling Expenses (if any) £ 1 : 12 : 9 31st May 1918.

Committee's Minute GLASGOW 4 JUN 1918

Assigned + LMC 578.

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



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