

Rpt. 4.

## REPORT ON MACHINERY.

No. 17344

Received at London Office

Date of writing Report 27 Aug 1918 When handed in at Local Office 24/8/18 19 18 Port of Greenock  
 No. in Survey held at Greenock Date, First Survey 12th March, 1914; Last Survey 31 Aug 1918  
 Reg. Book. on the Steel Steamer "War Briton" (Number of Visits 102)

Master Harrison Built at Greenock By whom built Greenock Steamship Co Ltd When built 1918  
 Engines made at Greenock By whom made John S Kincaid & Co Ltd when made 1918  
 Boilers made at Glasgow By whom made D Rowan & Co Ltd when made 1918

Registered Horse Power 490 Owners Shipping Controller Port belonging to London

Nom. Horse Power as per Section 28 490 Is Refrigerating Machinery fitted for cargo purposes No 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 77 Dia. of Screw shaft 14.6 Material of 1st screw shaft as per rule 15 1/2 as fitted

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 13 3/4 as per rule 13 3/4 as fitted 13 3/4 Dia. of Crank shaft journals 13 3/4 as per rule 13 3/4 as fitted 13 3/4 Dia. of Crank pin 14 Size of Crank web 21.5 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 No Total surface 98 1/2

No. of Feed pumps Two Diameter of ditto 4 Stroke 27 Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps Two Diameter of ditto 4 Stroke 27 Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines Two Sizes of Pumps 7.5 - 14.25 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 Two 3 1/2 Two 3 1/2

Circulating pump separate engine. Steam donkey

No. of Bilge Injections Two sizes 8 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Two 3 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 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 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 No worked from Yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel As per Glasgow Report attached hereto

Total Heating Surface of Boilers 7020 Is Forced Draft fitted Yes No. and Description of Boilers Three single ended

Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 12 March 1918 No. of Certificate 14161

Can each boiler be worked separately Yes Area of fire grate in each boiler 63.5 No. and Description of Safety Valves Two

each boiler Two Area of each valve 9.62 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 26 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 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

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

If not, state whether, and when, one will be sent?

In a Report also sent on the Hull of the Ship?

3

0

53

23

2

2m, 7.17, T



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— *The top end bolts. The bottom end bolts. The main bearing bolts. One set coupling bolts. One set dead pump valves. One set bridge pump valves. One set check valves. Propeller bolts. One set dead escape valves. Three safety valve springs.*

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

*Robert Green*

Manufacturer.

Dates of Survey while building  
During progress of work in shops -- *(1914) Jan. 12-15-22-26-28-29. Apr. 4-5-10-12-13-24-30. May 4-8-11-14-17-24-28. July 20. Aug. 3-7. Sept. 3-14. Oct. 1-5-9-17-25-29. Nov. 2-6-10-13-17-20-24-28. Dec. 1-5-9-13-17-21-25-30. Jan. 15-17-21-25-30. Feb. 4-14-20-22-25. Mar. 1-8-12-13-15-18-21-26-28. Apr. 2-3-5-11-15-19-22-23-24-26. May 1-3-6-7-17-23-29-30. June 3-4-5-7-10-11-12-14-18-19-20-21-25-26-28. July 17-19-22-24-25-29-31. Aug. 15-19-22-27-29-31.*  
During erection on board vessel --  
Total No. of visits *102.*

Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders *29/5/18* Slides *24/7/18* Covers *29/5/18* Pistons *29/5/18* Rods *29/5/18*  
Connecting rods *29/5/18* Crank shaft *28/5/18* Thrust shaft *19/5/17* Tunnel shafts *25/7/18* Screw shaft *4/6/18* Propeller *29/5/18*  
Stern tube *29/5/18* Steam pipes tested *15/6/18* Engine and boiler seatings *24/6/18* Engines holding down bolts *15/6/18*  
Completion of pumping arrangements *15/6/18* Boilers fixed *15/6/18* Engines tried under steam *27/6/18*  
Completion of fitting sea connections *26/6/18* Stern tube *19/6/18* Screw shaft and propeller *19/6/18*  
Main boiler safety valves adjusted *22/6/18* Thickness of adjusting washers *8 1/16 5 1/16 - 8 1/16 5 7/16 - 8 1/16 5 7/16*  
Material of Crank shaft *Steel* Identification Mark on Do. *4979* Material of Thrust shaft *Steel* Identification Mark on Do. *4408*  
Material of Tunnel shafts *Steel* Identification Marks on Do. *633* Material of Screw shafts *Steel* Identification Marks on Do. *633*  
Material of Steam Pipes *Steel* Test pressure *540 lbs. & over*

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 fittings 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. & F.D. fitted to burn oil fuel above 150° F. (also to burn coal) in the Register Book.*

*This vessel is fitted to carry oil fuel above 150° F in oil tanks and double bottom in accordance with specification.*

*It is submitted that this vessel is eligible for THE RECORD. + L.M.C. & F.D. FITTED FOR OIL FUEL 8.18 F.P. ABOVE 150° F*

The amount of Entry Fee *£106.14.6* When applied for, *31st August 1918.*  
Special ... *£22.00* When received, *EL*  
Donkey Boiler Fee *£15.12.6*  
Travelling Expenses (if any) £ *7-9-18*

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



© 2020

Lloyd's Register Foundation