

REPORT ON MACHINERY

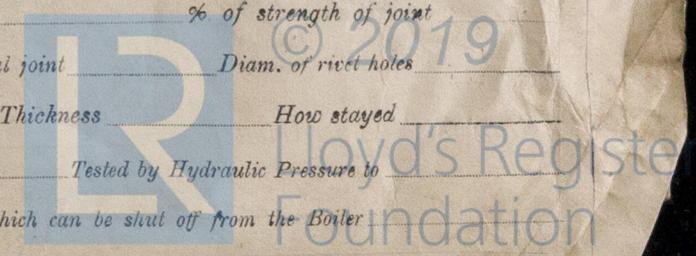
WED. No. 14314.
26 JUN 1918

Received at London Office

of writing Report 14th June, 1918. When handed in at Local Office 14th June, 1918. Port of Greenock.
 in Survey held at Port Glasgow. Date, First Survey 2nd June, 1916. Last Survey 9th June, 1918.
 on the S.S. Camana "CAMANA" (Number of Visits 111.) Gross 5561 Tons
 by John Fisher Built at Port Glasgow by whom built Dunlop Bremner & Co. Ltd Net 3457 Tons
 when made 1918.
 made at Port Glasgow By whom made Do when made 1918.
 made at Glasgow By whom made Dunsmuir & Jackson Ltd when made 1918.
 Horse Power 552 Owners The Camana St Co. Port belonging to London.
 Is Refrigerating Machinery fitted for cargo purposes Yes. Is Electric Light fitted Yes.

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3. No. of Cranks 3.
 of Cylinders 24 1/2 - 41 1/2 - 40. Length of Stroke 48. Revs. per minute 80. Dia. of Screw shaft 14 1/2. Material of Steel
 as fitted 14 1/2. screw shaft) as per rule 14.32.
 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
 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
 in the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes. If two
 are fitted, is the shaft lapped or protected between the liners Yes. Length of stern bush 5-4.
 of Tunnel shaft as per rule 13.01. Dia. of Crank shaft journals as per rule 13.73. Dia. of Crank pin 14 1/2. Size of Crank webs 21-9 1/2. Dia. of thrust shaft under
 as fitted 13 1/2. as fitted 14.
 Dia. of screw 14-0. Pitch of Screw 16-6. No. of Blades 4. State whether moveable Yes. Total surface 92 sq ft.
 Feed pumps Two. Diameter of ditto 8. Stroke 21. Can one be overhauled while the other is at work Yes.
 Bilge pumps Two. Diameter of ditto 4. Stroke 24. Can one be overhauled while the other is at work Yes.
 Donkey Engines 6. Sizes of Pumps 2 DUPLEX 8" x 10" x 10" REFRIG. 1 SINGLE 9" x 10" x 10" BALLAST. 1 SINGLE 8" x 6" x 10" GENERAL. 1 SINGLE 6" x 6" x 10" SANITARY. No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 4, 2 3/2" 3 2 3" IN DRY TANK. 1, 2 2 1/2" TUNNEL WELL. In Holds, &c. 2 2 3/2" No 4 HOLD. 2 2 3/2" No 3 HOLD. 2 2 3/2" No 2 HOLD. 2 2 3/2" No 1 HOLD.
 Bilge Injections 1. sizes 7. Connected to condenser, or to circulating pump Yes. Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2"
 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.
 connections with the sea direct on the skin of the ship Yes. Are they Valves or Cocks Both.
 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.
 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.
 pipes are carried through the bunkers None. How are they protected Yes.
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.
 the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes.
 Screw Shaft Tunnel watertight Yes. Is it fitted with a watertight door Yes. worked from Upper deck.

BOILERS, &c.—(Letter for record) Manufacturers of Steel See separate report.
 Heating Surface of Boilers 8535. Is Forced Draft fitted Yes. No. and Description of Boilers 3 Cyl multi.
 Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 24.1.17. No. of Certificate 13664.
 each boiler be worked separately Yes. Area of fire grate in each boiler 50 sq ft. No. and Description of Safety Valves to
 boiler 3 Spring loaded. Area of each valve 8.3 sq in. Pressure to which they are adjusted 205-76 lbs. Are they fitted with easing gear Yes.
 least distance between boilers or uptakes and bunkers or woodwork 7-6. Mean dia. of boilers 50. Length 50. Material of shell plates
 Range of tensile strength 50,000. Are the shell plates welded or flanged Yes. Descrip. of riveting: cir. seams
 Diameter of rivet holes in long. seams 1/2. Pitch of rivets 2. Lap of plates or width of butt straps 1/2.
 stages of strength of longitudinal joint 1. Working pressure of shell by rules 150. Size of manhole in shell 18.
 compensating ring None. No. and Description of Furnaces in each boiler None. Material None. Outside diameter None.
 of plain part top None. Thickness of plates crown None. Description of longitudinal joint None. No. of strengthening rings None.
 bottom None. bottom None. bottom None. bottom None. bottom None.
 working pressure of furnace by the rules None. Combustion chamber plates: Material None. Thickness: Sides None. Back None. Top None. Bottom None.
 of stays to ditto: Sides None. Back None. Top None. If stays are fitted with nuts or riveted heads None. Working pressure by rules None.
 Area at smallest part None. Area supported by each stay None. Working pressure by rules None. End plates in steam space: None.
 Thickness None. Pitch of stays None. How are stays secured None. Working pressure by rules None. Material of stays None.
 at smallest part None. Area supported by each stay None. Working pressure by rules None. Material of Front plates at bottom None.
 Material of Lower back plate None. Thickness None. Greatest pitch of stays None. Working pressure of plate by rules None.
 Pitch of tubes None. Material of tube plates None. Thickness: Front None. Back None. Mean pitch of stays None.
 across wide water spaces None. Working pressures by rules None. Girders to Chamber tops: Material None. Depth and None.
 Length as per rule None. Distance apart None. Number and pitch of stays in each None.
 Steam dome: description of joint to shell None. % of strength of joint None.
 Thickness of shell plates None. Material None. Description of longitudinal joint None. Diam. of rivet holes None.
 Working pressure of shell by rules None. Crown plates None. Thickness None. How stayed None.
HEATER. Type None. Date of Approval of Plan None. Tested by Hydraulic Pressure to None.
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler None.
 Pressure to which each is adjusted None. Is Easing Gear fitted None.



2153-0075

IS A DONKEY BOILER FITTED? *None fitted* If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Top end, 2 Bottom end, 2 Main bearing, 6 Shaft coupling bolts & nuts, 1 set feed & bilge pump valves, a quantity of assorted bolts & nuts, & iron of various sizes, 1 set bottom end brass, 1 ecc strap & pulley complete, 2 C.S. propeller blades, 1 air pump rod & nuts, 3 air pump valves, 1 circulating pump rod & nuts, 4 firing pump valves, 1 rod for Weirs pump, 3 springs for safety valves, 3 Main boiler tubes, 12 Condenser tubes & 20 ferrules, 1 packing ring & springs for HP & IP pistons set

The foregoing is a correct description,
DUNLOP, BREMNER & COY. LIMITED.

John Paton Manufacturer.

(1916) June 2-5-6-8-13-15-20-22-27-29 July 3-9-27 Aug 4-10 Sep 18-28 Oct 5-12 Nov 17 Dec 5-19 (1917) Jan 2-11-22-30 Feb 6-11-21-28 Mar 7-13-20-27-28 Apr 4-11-18-25-30 May 8-11-16-22-28 June 23-29 July 25-29 Aug 6-15-16-20-23 Sep 4-12 Oct 16-17-21-28 Nov 1-5-7-8-9-13-20-22-27-28 Dec 19-27 (1918) Jan 8-10-16-17-22-23-28 Feb 4-8-11-25-26 Mar 4-14-18-19-20-22-25-28-29 Apr 5-10-15-19-22-25-30 May 3-7-8-9-10-11-16-24-30 June 7-8-9

Dates of Survey while building: During progress of work in shops - - - During erection on board vessel - - - Total No. of visits *III*

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

" " " donkey " " " *Yes*

Dates of Examination of principal parts—Cylinders *11/1/17* Slides *12/10/16* Covers *11/1/17* Pistons *12/10/16* Rods *22/6/16*
Connecting rods *22/6/16* Crank shaft *5/12/16* Thrust shaft *5/12/16* Tunnel shafts *8/1/17* Screw shaft *19/4/17* Propeller *16/5/17*
Stern tube *12/4/17* Steam pipes tested *18/3/18 9/5/18 25/4/18* Engine and boiler seatings *18/1/18* Engines holding down bolts *11/3/18*
Completion of pumping arrangements *9/6/18* Boilers fixed *10/5/18* Engines tried under steam *9/6/18*
Completion of fitting sea connections *20/5/18* Stern tube *16/10/17* Screw shaft and propeller *20/5/18*
Main boiler safety valves adjusted *10/5/18* Thickness of adjusting washers *PORT BOILER P 3/8 5 3/8 CENTRE BOILER P 3/8 5 3/8 STEAM BOILER P 3/8 5 3/8*

Material of Crank shaft *W.S.* Identification Mark on Do. *256* Material of Thrust shaft *W.S.* Identification Mark on Do. *256*
Material of Tunnel shafts *W.S.* Identification Marks on Do. *256* Material of Screw shafts *W.S.* Identification Marks on Do. *256*
Material of Steam Pipes *WROT IRON* Test pressure *700 lbs*

Is an installation fitted for burning oil fuel *No* 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 *No* If so, state name of vessel *Yes*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The engines and boilers of this vessel have been built under special survey and the materials and workmanship are good. On completion they were examined while running full power trials in the Birn and found satisfactory.*

*The machinery throughout is now in good and efficient condition and eligible in my opinion to have the record **L.M.C. 6. 18.** marked in the Society's Register Book.*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C 6. 18. F.D.

J.W.D.
S.M. 26/6/18.

Harbottle
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ *3.0.0* When applied for, *13th June, 1918*
Special *(15.00)* ... £ *47.12.0*
Donkey Boiler Fee ... £ *10.0.0* When received, *29 June, 1918*
Travelling Expenses (if any) £ *10.0.0*

Committee's Minute *GLASGOW* 25 JUN 1918

Assigned + *L.M.C. 6. 18.*
MACHINERY CERTIFICATE *F.D.*
WRITTEN 26.6.18.

TUE. 29 OCT. 1918
TUE. 6 - JAN. 1920



Greenock.

Certificate (if required) to be sent to the Surveyors or registered not to arrive on or below the space for Committee's Minute.