

REPORT ON MACHINERY.

No. 14555.

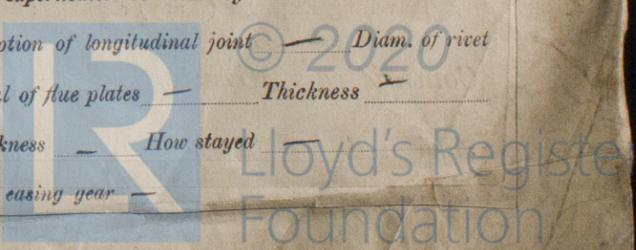
Received at London Office MON. AUG. 31. 1914

Writing Report 26.8.14 When handed in at Local Office 29.8.14 1914. Port of Leith
 Survey held at Leith Date, First Survey 21st June, 1913 Last Survey 28th August, 1914
 Book. on the S/S "Chakdara" (Number of Visits 39)
 Gross Tons 3035.00
 Net Tons 1581.35
 When built 1914
 By whom built Namase & Furusum Ltd
 By whom made Namase & Furusum Ltd when made 1914
 By whom made Namase & Furusum Ltd when made 1914
 Owners The British India Steam Navigation Co. Ltd. Port belonging to Glasgow
 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 24", 40", 70" Length of Stroke 48" Revs. per minute 80 Dia. of Screw shaft 14.5" Material of screw shaft Steel
 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 No 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 No If two
 are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 4-10"
 Tunnel shaft 13.23" Dia. of Crank shaft journals 13.89" Dia. of Crank pin 14" Size of Crank webs 9 3/4 x 9 3/4" Dia. of thrust shaft under
14" Dia. of screw 16-3" Pitch of Screw 19-3" No. of Blades 4 State whether moveable No Total surface 85.9"
 Feed pumps 2 Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work Yes
 Bilge pumps 2 Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work Yes
 Donkey Engines 2 Duplex Sizes of Pumps 7x5x8, 9x11x12 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room Four 3" In Holds, &c. 2 in No. 1, 3" 2 in No. 2, 3" 2 in No. 3, 3"
 Bilge Injections 1 sizes 9" Connected to condenser or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2"
 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
 connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
 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
 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 —
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 of examination of completion of fitting of Sea Connections 15/5/14 of Stern Tube 16/5/14 Screw shaft and Propeller 15/5/14
 Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper Platform

MANIFOLD, &c.—(Letter for record 5) Manufacturers of Steel L. B. Burdmore & Co. & Jas. Dunlop & Co.
 Heating Surface of Boilers 10070.9 Is Forced Draft fitted No No. and Description of Boilers 4 Single End
 Working Pressure 215 lbs Tested by hydraulic pressure to 430 lbs Date of test 31/1/14, 27/2/14 No. of Certificate 713, 715
 Can each boiler be worked separately Yes Area of fire grate in each boiler 67.8 sq No. and Description of Safety Valves to
 boiler 2 Spring valves Area of each valve 9.6 sq Pressure to which they are adjusted 216 lbs Are they fitted with easing gear Yes
 Minimum distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 15-6" Length 11-6" Material of shell plates S
 Range of tensile strength 30-34 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Cap butth
 Diameter of rivet holes in long. seams 1 1/32 Pitch of rivets 10 1/2 Top of plates or width of butt straps 23 7/8
 Stages of strength of longitudinal joint rivets 88 Working pressure of shell by rules 236 Size of manhole in shell 17x13
 compensating ring MS Nuts No. and Description of Furnaces in each boiler 4 Morrison Material S Outside diameter 41 1/4
 Thickness of plates top 1 1/8 crown 1 1/8 bottom 3/2 Description of longitudinal joint Weld No. of strengthening rings —
 Working pressure of furnace by the rules 230 Combustion chamber plates: Material S Thickness: Sides 1/8 Back 1/8 Top 1/8 Bottom 3/2
 Working pressure of stays to ditto: Sides 9x7 1/4 Back 9 5/8 x 7 1/2 Top 9 3/4 x 7 1/4 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 226
 Diameter of stays S Diameter at smallest part 2 1/32 Area supported by each stay 72 sq Working pressure by rules 253 End plates in steam space:
 Thickness 1/8 Pitch of stays 17x14 How are stays secured N.N.U. Working pressure by rules 224 Material of stays S
 Diameter at smallest part 6.1 Area supported by each stay 238 sq Working pressure by rules 266 Material of Front plates at bottom S
 Material of Lower back plate S Thickness 7/8 Greatest pitch of stays 13" Working pressure of plate by rules 206
 Pitch of tubes 3 3/4 x 3 3/4 Material of tube plates S Thickness: Front 7/8 Back 15/16 Mean pitch of stays 7 1/2 x 7 1/2
 Working pressures by rules 329 Girders to Chamber tops: Material S Depth and
 Distance apart 11 x 1 3/4 Length as per rule 34" Distance apart 9 3/4 Number and pitch of stays in each 3 7/4
 Working pressure by rules 220 Superheater or Steam chest; how connected to boiler — Can the superheater be shut off and the boiler worked
 Diameter — Length — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet
 Pitch of rivets — Working pressure of shell by rules — Diameter of flue — Material of flue plates — Thickness —
 Distance between rings — Working pressure by rules — End plates: Thickness — How stayed —
 Area of safety valves to superheater — Are they fitted with easing gear —

W466-0029



IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded? —

SPARE GEAR. State the articles supplied:— Two top end and two bottom end connecting rod bolts and nuts, two main bearing bolts, one set connecting bolts one set lub and hills pump valves, assorted bolts and nuts, 20m of various sizes, one propeller shaft, 2 propeller blades, 1 air pump bucket and rod, 1 pair bottom end brasses.

The foregoing is a correct description.
RAMAGE & FERGUSON, Limited.

Wm J. Ramage
ENGINEERING MANAGER

Manufacturer.

Dates of Survey while building: During progress of work in shops: 1913 June 2/13 July 9 August 1/28 September 4 October 4 9 14 24 November 6 14 December 3 10 15 16 27.
During erection on board vessel: 1914 January 12 19 31 February 2 13 18 24 March 2 20 April 24 May 15 28 June 6 25 July 13 28 30 August 3 25 26 29
Total No. of visits: 39. Is the approved plan of main boiler forwarded herewith? Yes

Dates of Examination of principal parts: 2/6, 13/6, 7/7, 1/8
Cylinders: 7/10, 24/10, 6/11, 17/11, 10/12, 16/12/13 Slides: 9/10, 17/10/13 Covers: 4/9, 4/10/13 Pistons: 12/6, 1/8, 4/9, 4/10, 4/10/13 Rods: 7/7, 1/8, 4/9, 4/10
Connecting rods: 4/9, 4/10/13 Crank shaft: 17/10, 17/11/13 Thrust shaft: 4/9, 4/10/13 Tunnel shafts: 24/9, 6/11, 16/12/13 Screw shaft: 27/11, 15/12/14 Propeller: 24/10/13, 19/11/14
Stern tube: 2/2, 2/3, 20/3/14 Steam pipes tested: 25/5, 13/7/14 Engine and boiler seatings: 25/6/14 Engines holding down bolts: 25/6, 7/7/14
Completion of pumping arrangements: 30/7/14 Boilers fixed: 30/7/14 Engines tried under steam: 26/8/14
Main boiler safety valves adjusted: 3/8/14 Thickness of adjusting washers: For 13 1/2" Port P. 3/8" S. 3/8" Start P. 7/8" S. 3/8"
Material of Crank shaft: SM Identification Mark on Do: 313 GAH Material of Thrust shaft: SM Identification Mark on Do: 313 GAH
Material of Tunnel shafts: SM Identification Marks on Do: 313 GAH Material of Screw shafts: SM Identification Marks on Do: 313 GAH
Material of Steam Pipes: SM Test pressure: 645 lbs

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

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of this vessel has been built under special survey, the materials and workmanship are sound and good and under the vessel ship in my opinion to have merit of + L.M.C. 8. 14.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 8. 14. F.D.

J.M. J.W.D.
31/8/14

The amount of Entry Fee ... £ 3 : : When applied for.
Special ... £ 53: 8 : : 29/8/14 1914.
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ : : : 2-9-14 1914

G. A. Stain
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute
Assigned L.M.C. 8. 14
F.D.



Certificate (if required) to be sent to
The Surveyors are requested not to write on or below the space for Committee's Minute.