

REPORT ON MACHINERY.

No. 31118
WED. FEB. 21, 1912

Received at London Office

Date of writing Report 16-2-12 When handed in at Local Office 17-2-12 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 21st Feb/11 Last Survey 16-2-1912
 Reg. Book. New on the S.S. "Mc ELWAIN" (Number of Visits 11)
 Master W. A. Innes Built at Workington By whom built R. Williamson & Son (N^o 28) Tons } Gross 810.8
 Engines made at Glasgow By whom made Ross & Duncan (N^o 846) when made 1912 } Net 358.3
 Boilers made at Glasgow By whom made Ross & Duncan (N^o 1350-1) when made 1911 }
 Registered Horse Power 114 Owners Maritime Provinces S.S. Co. Port belonging to Glasgow }
 Nom. Horse Power as per Section 28 114 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Exp. Surf. Cond^r No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 15-25 1/2-41 Length of Stroke 30 Revs. per minute 84 Dia. of Screw shaft 8 1/4 Material of screw shaft iron
 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 2-11
 Dia. of Tunnel shaft as per rule 7.47 Dia. of Crank shaft journals as per rule 7.8 Dia. of Crank pin 4 1/8 Size of Crank webs 11 1/2 x 5 1/2 Dia. of thrust shaft under collars 4 1/8 Dia. of screw 11-0 Pitch of Screw 13-10 1/2 No. of Blades 4 State whether moveable no Total surface 46.6 sq. ft.
 No. of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 15 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 3 Stroke 15 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 3 Sizes of Pumps 6x4x6 Feed GENERAL and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2-2 1/4 & 1-2 1/2 Special 3x2x3 DONKEY FEED In Holds, &c. 2-2 Forward

No. of Bilge Injections 1 sizes 3 1/2 Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size Yes - 2 1/4
 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 none
 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 Above
 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 Tank & hold suction How are they protected wood casing
 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
 Dates of examination of completion of fitting of Sea Connections see Workington Report of Stern Tube 24-4-11 Screw shaft and Propeller see Workington Report
 Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door Machinery worked from aft

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Plate: The Steel Company of Scotland Ltd (Blackburn)
Base: The Lanarkshire Steel Company
 Total Heating Surface of Boilers 2048 sq. ft. Is Forced Draft fitted no No. and Description of Boilers One S.E. Marine
 Working Pressure 160 lbs. Tested by hydraulic pressure to 320 lbs. Date of test 11-8-1911 No. of Certificate 11152
 Can each boiler be worked separately Yes Area of fire grate in each boiler 58.5 sq. ft. No. and Description of Safety Valves to each boiler Two spring loaded Area of each valve 6.49 sq. in. Pressure to which they are adjusted 165 lbs. Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers of woodwork 9" INS. Mean dia. of boilers 14-3 1/8 Length 10-6 Material of shell plates Steel
 Thickness 1 1/16 Range of tensile strength 28/32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R.
 long. seams T.R. D.B.S. Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 4 1/8 Lap of plates or width of butt straps 15 5/8
 Per centages of strength of longitudinal joint rivets 84 Working pressure of shell by rules 162 lbs. Size of manhole in shell 16 x 12
 plate 85 Size of compensating ring 4 x 1 1/16 No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 3-8
 Length of plain part top 6-6 bottom 6-4 1/2 Thickness of plates crown 3/4 bottom 3/4 Description of longitudinal joint welded No. of strengthening rings One
 Working pressure of furnace by the rules 164 lbs. Combustion chamber plates: Material Steel Thickness: Sides 5/8 Back 5/8 Top 5/8 Bottom 5/8
 Pitch of stays to ditto: Sides 9 1/2 x 8 1/2 Back 9 x 9 Top 9 x 9 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 162 lbs.
 Material of stays Steel Diameter at smallest part 1.46 in. Area supported by each stay 83 1/4 sq. in. Working pressure by rules 169 lbs. and plates in steam space:
 Material Steel Thickness 1 1/8 Pitch of stays 20 1/4 x 14 1/4 How are stays secured D.N.W. Working pressure by rules 160 lbs. Material of stays Steel
 Diameter at smallest part 5.94 Area supported by each stay 368 sq. in. Working pressure by rules 164 lbs. Material of Front plates at bottom Steel
 Thickness 3/4 Material of Lower back plate Steel Thickness 13/16 Greatest pitch of stays 13 3/4 x 9 Working pressure of plate by rules 169 lbs.
 Diameter of tubes 3 1/2 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates Steel Thickness: Front 3/4 Back 2 3/32 Mean pitch of stays 10 1/2
 Pitch across wide water spaces 14 Working pressures by rules 168 lbs. Girders to Chamber tops: Material iron Depth and thickness of girder at centre 7 x 2 1/4 Length as per rule 2-5 7/8 Distance apart 9 1/2 Number and pitch of stays in each 2 at 9
 Working pressure by rules 145 lbs. Superheater or Steam chest; how connected to boiler Yes Can the superheater be shut off and the boiler worked separately Yes
 Diameter Yes Length Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet holes Yes Pitch of rivets Yes Working pressure of shell by rules Yes Diameter of flue Yes Material of flue plates Yes Thickness Yes
 If stiffened with rings Yes Distance between rings Yes Working pressure by rules Yes End plates: Thickness Yes How stayed Yes
 Working pressure of end plates Yes Area of safety valves to superheater Yes Are they fitted with easing gear Yes

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THE MARGIN.

If not, state whether, and when, one will do so.

Im. 1.10.-T.

W968-0064

Lloyd's Register Foundation

