

REPORT ON MACHINERY.

No. 24382

MRS. 22 MAR 1910

Received at London Office

Date of writing Report 19 When handed in at Local Office 19 Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 15 Sept. 09 Last Survey 11 Mar. 1910
 Reg. Book. on the S/S. Mozart (Number of Visits 23)
 Master McLair Built at Slend. By whom built Bartram & Son Tons { Gross 4427
 Engines made at Slend. By whom made J. Dickinson & Son when made 1910 Net 2750
 Boilers made at " By whom made " when made 1910
 Registered Horse Power ✓ Owners Cyphens Shipping Co. Port belonging to Sunderland
 Nom. Horse Power as per Section 28 404 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted ✓

ENGINES, &c.—Description of Engines C. & P. D. No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 26 1/2 Length of Stroke 48 Revs. per minute 70 Dia. of Screw shaft as per rule 14 1/2 Material of I.
 as fitted 14 1/2 screw shaft
 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 ✓ 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 ✓ If two
 liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 5 ft.
 Dia. of Tunnel shaft as per rule 12 1/2 Dia. of Crank shaft journals as per rule 13 1/2 Dia. of Crank pin 13 1/2 Size of Crank webs Patent Dia. of thrust shaft under
 collars 13 1/2 Dia. of screw 17 3/4 Pitch of Screw 17 3/4 No. of Blades 4 State whether moveable f Total surface 84 1/2
 No. of Feed pumps 2 Diameter of ditto 4 Stroke 25 1/2 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 25 1/2 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps 9 x 8 x 9 - 7 1/2 x 4 x 4 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room P. 3 1/2 C. 3 1/2 S. 2 of 3 1/2 In Holds, &c. 2 of 3 1/2 in each
Tunnel well 3 1/2
 No. of Bilge Injections 1 sizes 4 Connected to condenser, or to circulating pump C & P Is a separate Donkey Suction fitted in Engine room & size 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 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 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 none How are they protected ✓
 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 27.1.10 of Stern Tube 6.1.10 Screw shaft and Propeller 6.1.10
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top platform

BOILERS, &c.—(Letter for record R) Manufacturers of Steel J. Spencer & Sons Ltd.
 Total Heating Surface of Boilers 6568 Is Forced Draft fitted no No. and Description of Boilers 3 S.E.
 Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 21.1.10 No. of Certificate 2804
 Can each boiler be worked separately yes Area of fire grate in each boiler 55 1/2 No. and Description of Safety Valves to
 each boiler 2 Area of each valve 4.04 Pressure to which they are adjusted 185 Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 3 1/2 ft. Mean dia. of boilers 15 ft. Length 10' 6" Material of shell plates 8
 Thickness 1 3/16 Range of tensile strength 282 - 32 Are the shell plates welded or flanged Ends Descrip. of riveting: cir. seams 2-lap
 long. seams d. butt Diameter of rivet holes in long. seams 1 5/16 Pitch of rivets 8 3/4 Lap of plates or width of butt straps 1' 4 1/4
 Per centages of strength of longitudinal joint rivets 88.6 plate 85 Working pressure of shell by rules 182 Size of manhole in shell 16 x 12
 Size of compensating ring 8 1/2 x 1 3/16 No. and Description of Furnaces in each boiler 3 plain Material 8 Outside diameter 3' 6"
 Length of plain part 6.8 1/2 Thickness of plates crown 4 1/4 bottom 6 1/4 Description of longitudinal joint weld No. of strengthening rings ✓
 Working pressure of furnace by the rules 183 Combustion chamber plates: Material 8 Thickness: Sides 1/6 Back 1/6 Top 1/6 Bottom 1/6
 Pitch of stays to ditto: Sides 10 x 9 Back 8 1/2 x 9 1/2 Top 10 x 9 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 187
 Material of stays W.I. area Diameter at smallest part 2.69 Area supported by each stay 111.9 Working pressure by rules 180 End plates in steam space:
 Material 8 Thickness 1 1/4 Pitch of stays 19 x 21 3/8 How are stays secured d. nuts Working pressure by rules 181 Material of stays 8
 Diameter at smallest part 8.5 Area supported by each stay 406 Working pressure by rules 218 Material of Front plates at bottom 8
 Thickness 1/4 Material of Lower back plate 8 Thickness 1/4 Greatest pitch of stays 14 Working pressure of plate by rules 183
 Diameter of tubes 3 1/2 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates 8 Thickness: Front 1/8 Back 1/8 Mean pitch of stays 9"
 Pitch across wide water spaces 14 3/4 Working pressures by rules 232 Girders to Chamber tops: Material 8 Depth and
 thickness of girder at centre 8 x 2 1/2 Length as per rule 34 Distance apart 10 Number and pitch of stays in each 3 @ 9"
 Working pressure by rules 181 Superheater or Steam chest; how connected to boiler ✓ Can the superheater be shut off and the boiler worked
 separately ✓ Diameter ✓ Length ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet
 holes ✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness ✓
 If stiffened with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness ✓ How stayed ✓
 Working pressure of end plates ✓ Area of safety valves in superheater ✓ Are they fitted with easing gear ✓

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Manufacturers of Steel

SPARE GEAR. State the articles supplied:—1 Set top and bottom bolts & nuts. two main bearing bolts & nuts. one set Coupling bolts & nuts. 1 Set feed & bilge pump valves. propeller shaft. propeller. Air. Cir. & ballast pump valves. Assorted iron & boiler tubes.

Manufacturer.

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

Test pressure 360 lbs

Machinery and boilers built under
Special Survey: Materials and workmanship
good. Engines examined under steam & found
Satisfactory. It is submitted that this
vessel is eligible for the record of
L. M. C. 3/10

It is submitted that
this record is eligible for
THE RECORD. +LMC 3,10

J. M. *Hand*
22.3.10

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

THUR. 24 MAR 1910

+ Lm 6. 3. 10

Lloyd's Register
Foundation