

REPORT ON MACHINERY.

No. 29791

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 No. in Survey held at Dumbarton Date, First Survey 28th Feby 10 Last Survey 17th Feby 1911
 Reg. Book. on the Steel S/s Angora (Number of Visits 19)
 Master John A. Robertson Built at Dumbarton By whom built Wm Denny Bros Tons { Gross 4798.48
 Engines made at Dumbarton By whom made Denny & Co when made 1911 { Net 925.59
 Boilers made at do By whom made do when made 1911
 Registered Horse Power Owners British India Steam Nav Co Port belonging to Glasgow
 Nom. Horse Power as per Section 28 1105 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Three Turbines No. of Cylinders 3 No. of Cranks ✓
 Dia. of Cylinders HP 51" 2LP 1/2" Length of Stroke ✓ Revs. per minute 400 Dia. of Screw shaft ^{approved as per rule 8 1/2} as fitted 8 1/2" Material of screw shaft steel
 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 yes If two
 liners are fitted, is the shaft lapped or protected between the liners — Length of stern bush 48"
 Dia. of Tunnel shaft ^{approved as per rule 7 3/4} as fitted 7 3/4" Dia. of Rotor ^{as per rule 8 1/2} as fitted 8 1/2" Dia. of Crank pin ✓ Size of Crank webs ✓ Dia. of thrust shaft under
 collars ✓ Dia. of screw 6'-9" Pitch of Screw 6'-0" No. of Blades 3 State whether moveable no Total surface 23.5 ft²
 No. of Feed pumps 2 Weirs Diameter of ditto 14-10 1/2 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 duplex Diameter of ditto 7-9 Stroke 8 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 1 Weir 14-10 1/2 x 24 Sizes of Pumps 2-6-6 x 6 1'-10 1/2 - 7 x 10 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4 of 3" - 2 of 3 1/2" In Holds, &c. Fore hold 1 of 3" No 2 hold 2 of 3" Tunnel
 1 of 3" - 2 of 2"
 No. of Bilge Injections 2 sizes 12" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size 2 of 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 none
 Are all connections with the sea direct on the skin of the ship yes except main injections 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 Bilge & ballast. How are they protected wood casings
 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 22. 11. 10 of Stern Tube 27. 9. 10 Screw shaft and Propeller 21. 10. 10
 Is the ^(after lower hold) Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from main deck.

BOILERS, &c.—(Letter for record no) Manufacturers of Steel W Readmore & Co. Lanarkshire Steel Co
 Total Heating Surface of Boilers 18080 Is Forced Draft fitted yes No. and Description of Boilers 2 Double ended (for SE see sketch)
 Working Pressure 150 lbs. Tested by hydraulic pressure to 300 lbs. Date of test 12. 9. 10 No. of Certificate 10583
 Can each boiler be worked separately yes Area of fire grate in each boiler 128 ft² No. and Description of Safety Valves to
 each boiler 2 spring loaded Area of each valve 15.3" Pressure to which they are adjusted 150 lbs. Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 15" Mean dia. of boilers 15'-0" Length 22'-0" Material of shell plates steel
 Thickness 13/32" Range of tensile strength 28/32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR+TR lap
 long. seams DBS, TR Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8" Lap of plates or width of butt straps 17 5/8"
 Per centages of strength of longitudinal joint rivets 89.2 Working pressure of shell by rules 171 lbs. Size of manhole in shell 17 x 13
 plate 85.1 Working pressure of shell by rules 151
 Size of compensating ring 36" x 36" x 1 5/8" No. and Description of Furnaces in each boiler 6 Morrison Material steel Outside diameter 49 1/4"
 Length of plain part ^{top} Thickness of plates ^{bottom} crown 1/2" Description of longitudinal joint welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 153 Combustion chamber plates: Material steel Thickness: Sides 7/16" Back 7/16" Top 7/16" Bottom 13/16"
 Pitch of stays to ditto: Sides 8 1/2" x 8 1/2" Back 8 1/2" x 8 1/2" Top 7 1/2" x 7 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 151
 Material of stays iron ^{21.5 tons area} Diameter at smallest part 1.41" Area supported by each stay 42" Working pressure by rules 156 End plates in steam space:
 Material steel Thickness 7/8" Pitch of stays 16 x 14 7/8" How are stays secured DN+W Working pressure by rules 152 Material of stays steel
 Diameter at smallest part 3.98" Area supported by each stay 238" Working pressure by rules 143 Material of Front plates at bottom steel
 Thickness 13/16" Material of Lower back plate — Thickness — Greatest pitch of stays 15" Working pressure of plate by rules 150
 Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 3/4" Material of tube plates steel Thickness: Front 27/32" Back 3/4" Mean pitch of stays 8 3/4"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 150 Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 2 plates 7 x 3/4" Length as per rule 2'-6" Distance apart 7 1/2" Number and pitch of stays in each 3 of 7 1/2"
 Working pressure by rules 154 Superheater or Steam chest; how connected to boiler none 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 to superheater ✓ Are they fitted with easing gear ✓

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