

## REPORT ON MACHINERY.

No. 67.404.

Port of London.

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No. in Survey held at London Date, first Survey Dec 13/1904 Last Survey May 25 1905  
 Reg. Book. 162 on the Eugenie N<sup>o</sup>. 778 for the P. S. "Alleyne" (Number of Visits 29)  
 Master Baker N<sup>o</sup>. 777 Built at London By whom built Thames Iron Works S<sup>rs</sup>. C<sup>o</sup> L<sup>td</sup> Tons { Gross 125.95  
 Engines made at London By whom made do when made 1905 Net 120.95  
 Boilers made at London By whom made do when made 1905  
 Registered Horse Power 53 Owners London County Council Port belonging to London  
 Nom. Horse Power as per Section 28 53 Is Refrigerating Machinery fitted no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Diagonal compound No. of Cylinders 2 No. of Cranks 2  
 Dia. of Cylinders 16 1/2 Length of Stroke 36 Revs. per minute app. 4 Material of 5  
 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 no 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 app. 4  
 Dia. of Tunnel shaft as per rule Dia. of Crank shaft journals as per rule Dia. of Crank pin 6 3/4 Size of Crank webs 4 1/2 x 7 1/4 Dia. of thrust shaft under  
 collars as fitted Dia. of 8-9 Pitch of screw 8 No. of blades 8 State whether moveable feathering Total surface 1  
 No. of Feed pumps 1 Diameter of ditto 3 1/2 Stroke 10 Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 1 Diameter of ditto 3 1/2 Stroke 10 Can one be overhauled while the other is at work yes  
 No. of Donkey Engines one Sizes of Pumps 4 1/2 x 3 1/4 x 8 Stroke 10 No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room one 2" engine & one 2" donkey In Holds, &c. one 2" forward and 2" aft.  
 No. of bilge injections one sizes 3" Connected to condenser, on to circulating pump yes Is a separate donkey suction fitted in Engine room & size yes-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 —  
 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  
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock — Is the screw shaft tunnel watertight —  
 Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 700 sq. ft. Is forced draft fitted yes  
 No. and Description of Boilers one S.E. return tube Working Pressure 115 Tested by hydraulic pressure to 230  
 Date of test 20.3.05 Can each boiler be worked separately yes Area of fire grate in each boiler 250 No. and Description of safety valves to  
 each boiler 2-direct springs Area of each valve 7.05 Pressure to which they are adjusted 115 Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 12 Mean dia. of boilers 9-0 Length 8-9 Material of shell plates S  
 Thickness 9/16 Range of tensile strength 29-32 Are they welded or flanged no Descrip. of riveting: cir. seams single long. seams treble butt  
 Diameter of rivet holes in long. seams 3/4 Pitch of rivets 4 1/2 83.7 82.0 Working pressure of shell by rules 119 Size of manhole in shell 16 x 12  
 Per centages of strength of longitudinal joint 83.7 82.0 119 16 x 12  
 Size of compensating ring 5 1/2 x 7 1/8 No. and Description of Furnaces in each boiler 2 plain Material S Outside diameter 34 5/8  
 Length of plain part top 70 Thickness of plates crown 9/16 Description of longitudinal joint welded No. of strengthening rings none  
 bottom 62 1/2 Working pressure of furnace by the rules 142 Combustion chamber plates: Material S Thickness: Sides 1/2 Back 1/2 Top 9/16 Bottom 1/2  
 Pitch of stays to ditto: Sides 8 1/4 x 7 1/4 Back 8 1/2 x 7 1/8 Top 9 1/4 x 8 1/4 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 120  
 Material of stays S Diameter at smallest part 90 Area supported by each stay 640 Working pressure by rules 116 End plates in steam space:  
 Material S Thickness 1/16 Pitch of stays 7 1/2 x 1 1/2 How are stays secured d. nuts Working pressure by rules 115 Material of stays S  
 Diameter at smallest part 2.87 Area supported by each stay 2180 Working pressure by rules 133 Material of Front plates at bottom S  
 Thickness 1/16 Material of Lower back plate S Thickness 1/16 Greatest pitch of stays 11 3/4 Working pressure of plate by rules 115  
 Diameter of tubes 2 1/2 Pitch of tubes 3 1/2 Material of tube plates S Thickness: Front 1/16 Back 1/16 Mean pitch of stays 11.4  
 Pitch across wide water spaces 12 1/2 Working pressures by rules 116 Girders to Chamber tops: Material S Depth and  
 thickness of girder at centre 6 1/2 x 5/8 - 2 Length as per rule 25 Distance apart 9 1/4 Number and pitch of Stays in each 2-8 1/4  
 Working pressure by rules 135 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked  
 separately yes 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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