

REPORT ON MACHINERY.

Port of MIDDLESBROUGH-ON-TEES.

Received at London Office

MUN. 12 MAR 1906

No. in Survey held at Stockton & Newcastle-on-Tyne Date, first Survey 1st Decr 05 Last Survey 1st Decr 1906Reg. Book. Supplement on the Steel S.S. "King Edward"(Number of Visits 23)Master C. RitchBuilt at NewcastleBy whom built H. Stephenson & Co. LtdGross 4357
Tons Net 2892
When built 1906Engines made at StocktonBy whom made Tolain & Co. Ltdwhen made 1906Boilers made at StocktonBy whom made Tolain & Co. Ltdwhen made 1906

Registered Horse Power

Owners Phillipps, Philipp & Co. Ltd Port belonging to LondonNom. Horse Power as per Section 28 358Is Refrigerating Machinery fitted for cargo purposes NoIs Electric Light fitted No

ENGINES, &c.—Description of Engines Triple expansion Direct Acting No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 26-42½-64½ Length of Stroke 45 Revs. per minute 56 Dia. of Screw shaft as per rule 14½ Material of W. 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 - 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 5-4
 Dia. of Tunnel shaft as per rule 12½ Dia. of Crank shaft journals as per rule 13½ Dia. of Crank pin 14½ Size of Crank webs 22½ x 9½ Dia. of thrust shaft under
 collars 14½ Dia. of screw 17-0 Pitch of screw 17-0 No. of blades 4 State whether moveable No Total surface 86½
 No. of Feed pumps 2 Diameter of ditto 3½ Stroke 33 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4¾ Stroke 33 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines Two Sizes of Pumps Ballast 10x13 Feed 4x8 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Three 3½ diam In Holds, &c. In all holds. Two 3½
 In Tunnel Well, one 2½
 No. of bilge injections 1 sizes 6½ Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room & size Yes 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 -
 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 While building Is the screw shaft tunnel watertight Yes
 Is it fitted with a watertight door Yes worked from Top platform

BOILERS, &c.—No. of Certificate 3582 (Letter for record S) Total Heating Surface of Boilers 5620 Is forced draft fitted No

No. and Description of Boilers Two Cyl. Tubular Working Pressure 180 lb Tested by hydraulic pressure to 360 lb
 Date of test 9-1-06 Can each boiler be worked separately Yes Area of fire grate in each boiler 63½ No. and Description of safety valves to
 each boiler Two Spring Area of each valve 9.29 Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 18 Dia. of boilers 16-6 Length 11-0 Material of shell plates Steel
 Thickness 3/8 Range of tensile strength 27/32 Are they welded or flanged No Descrip. of riveting: cir. seams 20 1/2 in long. seams 8 Butt Shape
 Diameter of rivet holes in long. seams 1/8 Pitch of rivets 9 3/8 Lap of plates or width of butt straps 1-8 3/4
 Per centages of strength of longitudinal joint rivets 85.6 Working pressure of shell by rules 182 lb Size of manhole in shell 17 x 13
 Size of compensating ring 31-27-13/8 No. and Description of Furnaces in each boiler 3 Morrison Material Steel Outside diameter 4-1
 Length of plain part 6-9 3/8 Thickness of plates 9/16 Description of longitudinal joint Welded No. of strengthening rings -
 Working pressure of furnace by the rules 192 lb Combustion chamber plates: Material Steel Thickness: Sides 5/8 1/2 Back 5/8 1/2 Top 5/8 1/2 Bottom 13/16
 Pitch of stays to ditto: Sides 7 3/4 x 9 1/4 Back 8 7/8 x 9 3/8 Top 9 3/4 x 7 3/4 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 188 lb
 Material of stays Steel Diameter at smallest part 1 9/16 Area supported by each stay 70.7 Working pressure by rules 219 lb End plates in steam space:
 Material Steel Thickness 1 5/16 Pitch of stays 20 3/4 x 21 1/2 How are stays secured 2 x 10 Working pressure by rules 182 lb Material of stays Steel
 Diameter at smallest part 3 1/4 Area supported by each stay 446 Working pressure by rules 186 lb Material of Front plates at bottom Steel
 Thickness 1 1/32 Material of Lower back plate Steel Thickness 1 1/32 Greatest pitch of stays 17 3/4 x 9 1/8 Working pressure of plate by rules 184 lb
 Diameter of tubes 3 1/2 Pitch of tubes 4 3/4 x 4 7/8 Material of tube plates Steel Thickness: Front 1 1/32 Back 13/16 Mean pitch of stays 11
 Pitch across wide water spaces 14 1/2 Working pressures by rules 194 lb Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 7 3/4 x 2 Length as per rule 30 Distance apart 9 3/4 Number and pitch of Stays in each 3 7 3/4
 Working pressure by rules 182 lb 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 -

