

REPORT ON MACHINERY.

No. 23303

Received at London Office

etc. of writing Report *Jan'y 1911* When handed in at Local Office *13th Jan'y 1911* Port of *Hull*
 No. in Survey held at *Hull* Date, First Survey *Feb. 23rd* Last Survey *5th Jan'y 1911*
 Reg. Book. *1328* on the *Shel. Sc. Sr. Bury* (Number of Visits)
 Taster Built at *Hull* By whom built *Messrs Earle's Co. Ltd* Tons } Gross *1634*
 } Net *879*
 Engines made at } *Hull* By whom made } *Messrs Earle's Co. Ltd* when made *1910*
 Boilers made at } *Hull* By whom made } *Messrs Earle's Co. Ltd* when made *1910*
 Registered Horse Power Owners *Gt. Central Railway* Port belonging to *Hull Gumsby*
 Nom. Horse Power as per Section 28 *309* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*

ENGINES, &c.—Description of Engines *Triple Expansion* No. of Cylinders *3* No. of Cranks *3*
 Dia. of Cylinders *22" - 35" - 60"* Length of Stroke *42"* Revs. per minute *90* Dia. of Screw shaft *as per rule 12"* Material of *Iron*
as fitted 12 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
 the propeller boss *Yes* If the liner is in more than one length are the joints burned *One length* 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
 covers are fitted, is the shaft lapped or protected between the liners *—* Length of stern bush *60"*
 Dia. of Tunnel shaft *as per rule 11.1"* Dia. of Crank shaft journals *as per rule 11.65"* Dia. of Crank pin *12.5"* Size of Crank webs *18 1/2" x 8"* Dia. of thrust shaft under
 flars *12.125"* Dia. of screw *14 1/2"* Pitch of Screw *16 - 9"* No. of Blades *4* State whether moveable *Yes* Total surface *62 sq ft*
 No. of Feed pumps *2* Diameter of ditto *4"* Stroke *21"* Can one be overhauled while the other is at work *Yes*
 No. of Bilge pumps *2* Diameter of ditto *4 1/2"* Stroke *21"* Can one be overhauled while the other is at work *Yes*
 No. of Donkey Engines *Four* Sizes of Pumps *1 Worthington 9" x 6" x 10"* No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room *Three 2 1/2", One 3"* In Holds, &c. *One each 2 1/2" to Post aft hold, tunnel well, each*
 No. of Bilge Injections *1* sizes *1/2"* Connected to condenser, or to circulating pump *Two 1/2" to No. 1 tank, Two 1/2" to No. 2 tank, Two 1/2" to No. 4 tank*
 Is a separate Donkey Suction fitted in Engine room & size *Yes 3"*
 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*
 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 *19.12.10* of Stern Tube *19.12.10* Screw shaft and Propeller *19.12.10*
 Is the Screw Shaft Tunnel watertight *Yes* Is it fitted with a watertight door *Yes* worked from *top platform*

BOILERS, &c.—(Letter for record *a.*) Manufacturers of Steel *Messrs J. Spencer Sons*
 Total Heating Surface of Boilers *5540 sq ft* Is Forced Draft fitted *No* No. and Description of Boilers *Two Cyl. Multi S Ended*
 Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *4.10.10* No. of Certificate *1773*
 Can each boiler be worked separately *Yes* Area of fire grate in each boiler *72 sq ft* No. and Description of Safety Valves to
 each boiler *Two Spring* Area of each valve *14.19 sq in* Pressure to which they are adjusted *182 lbs* Are they fitted with easing gear *Yes*
 Smallest distance between boilers or uptakes and bunkers or woodwork *12"* Mean dia. of boilers *16 - 0"* Length *11 - 8 5/8"* Material of shell plates *S*
 Thickness *1 1/8"* Range of tensile strength *29 - 32* Are the shell plates welded or flanged *No* Descrip. of riveting: cir. seams *S.D.*
 Longitudinal seams *D.B.S.V.R.* Diameter of rivet holes in long. seams *1 1/2"* Pitch of rivets *9 3/8"* Lap of plates or width of butt straps *21 5/8"*
 Percentages of strength of longitudinal joint rivets *92.5* Working pressure of shell by rules *211 lbs* Size of manhole in shell *20" x 15 1/2"*
 Diameter of compensating ring *7" x 1 1/2"* No. and Description of Furnaces in each boiler *3 Messrs Material S* Outside diameter *4' - 4"*
 Thickness of plain part top *31/32"* Thickness of plates crown *31/32"* Description of longitudinal joint *Welded* No. of strengthening rings *0*
 Working pressure of furnace by the rules *205 lbs* Combustion chamber plates: Material *S* Thickness: Sides *1/8"* Back *1/8"* Top *1/8"* Bottom *1"*
 Diameter of stays to ditto: Sides *8" x 8 1/2"* Back *7" x 8 1/2"* Top *8" x 7 1/2"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *255 lbs*
 Material of stays *S* Diameter at smallest part *1 5/8"* Area supported by each stay *79.75 sq in* Working pressure by rules *197 lbs* End plates in steam space:
 Material *S* Thickness *1 5/32"* Pitch of stays *15" x 15"* How are stays secured *D. Nuts* Working pressure by rules *267 lbs* Material of stays *S*
 Diameter at smallest part *2 13/16"* Area supported by each stay *225 sq in* Working pressure by rules *207 lbs* Material of Front plates at bottom *S*
 Thickness *1"* Material of Lower back plate *S* Thickness *7/8"* Greatest pitch of stays *15" x 12"* Working pressure of plate by rules *186 lbs*
 Diameter of tubes *3 3/4"* Pitch of tubes *4 1/2" x 4 1/2"* Material of tube plates *S* Thickness: Front *1"* Back *3/8"* Mean pitch of stays *9"*
 Working pressures by rules *201 lbs* Girders to Chamber tops: Material *S* Depth and
 thickness of girder at centre *10 1/2" x 1 3/4"* Length as per rule *2' - 11"* Distance apart *7 1/2"* Number and pitch of stays in each *Three 8"*
 Working pressure by rules *290 lbs* 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
 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 Fitted 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

