

REPORT ON MACHINERY.

No. 6316

MON. 10 JUN 1907

Port of *Belfast*

Received at London Office

19

No. in Survey held at *Belfast*

Date, first Survey *6 June 1906* Last Survey *24 May 1907*

Reg. Book.

(Number of Visits *43*)

Gross *2730*

Net *2326*

on the *S.S. Fulani*

Master *R. Mintz* Built at *Belfast*

By whom built *Hauland & Wolff*

When built *1907*

Engines made at *Belfast*

By whom made *Hauland & Wolff L^{td}*

when made *1907*

Boilers made at

By whom made

when made

Registered Horse Power

Owners *Edw. Dempster & Co*

Port belonging to *Liverpool*

Nom. Horse Power as per Section 28 *528*

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 *26"-44"-74"* Length of Stroke *48* Revs. per minute *76* Dia. of Screw shaft as per rule *14.98* 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 *Yes* 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 *63"*

Dia. of Tunnel shaft as per rule *13.7* Dia. of Crank shaft journals as per rule *14.88* Dia. of Crank pin *15"* Size of Crank webs *21x10 1/2"* of thrust shaft under collars *4 1/2"* Dia. of screw *17-8* Pitch of Screw *18-0* No. of Blades *4* State whether moveable *Yes* Total surface *84 1/2 sq ft.*

No. of Feed pumps *2* Diameter of ditto *4 1/2"* Stroke *28"* Can one be overhauled while the other is at work *Yes*

No. of Bilge pumps *2* Diameter of ditto *4"* Stroke *28"* Can one be overhauled while the other is at work *Yes*

No. of Donkey Engines *4* Sizes of Pumps *1 Double West 8x10 1/2 x 18" 1 Westinghouse 7 1/2 x 5 x 12" 1 9" x 10" 1 9" x 10" &c.* Suctions connected to both Bilge and Donkey pumps *4-3 1/2 x 4-3"*

In Engine Room *3-3 1/2"*

No. of Bilge Injections *1* sizes *8"* Connected to condenser, or to circulating pump *Pump* as a separate Donkey Suction fitted in Engine room & size *Yes-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 *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 *Below*

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 *Fore hold suction* 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 *22-1-07* of Stern Tube *22-1-07* Screw shaft and Propeller *22-1-07*

Is the Screw Shaft Tunnel watertight *Stated to be* Is it fitted with a watertight door *Yes* worked from *Upper Deck*

BOILERS, &c.—(Letter for record *S*) Manufacturers of Steel *W. Colville & Sons L^{td}*

Total Heating Surface of Boilers *7395* Is Forced Draft fitted *Yes* No. and Description of Boilers *3-Single End Cyl^{dr}*

Working Pressure *205 lbs* Tested by hydraulic pressure to *410 lbs* Date of test *26-4-07* No. of Certificate *395*

Can each boiler be worked separately *Yes* Area of fire grate in each boiler *55 1/2 sq ft* No. and Description of Safety Valves to each boiler *2-Vertical Spring* Area of each valve *8.29 sq in* Pressure to which they are adjusted *205 lbs* Are they fitted with easing gear *Yes*

Smallest distance between boilers or between a boiler and bunkers *1 ft 6 in* Mean dia. of boilers *14-5"* Length *11-9"* Material of shell plates *Steel*

Thickness *1/2"* Range of tensile strength *29-32 tons* Are the shell plates welded or flanged *No* Descrip. of riveting: cir. seam *Lap & But*

long. seams *Butt Lap* Diameter of rivet holes in long. seams *1 1/2"* Pitch of rivets *9 1/2"* Lap of plates or width of butt straps *22 1/2"*

Per centages of strength of longitudinal joint rivets *94.4* plate *84.2* Working pressure of shell by rules *206 lbs* Size of manhole in shell *16" x 12"*

Size of compensating rim *McNeil* No. and Description of Furnaces in each boiler *3-Browns* Material *Steel* Outside diameter *48 1/2"*

Length of plain part top *9"* bottom *9"* Thickness of plates crown *3 1/2"* bottom *3 1/2"* Description of longitudinal joint *Weld* No. of strengthening rings *5*

Working pressure of furnace by the rules *211 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *19-21/32* Back *19-21/32* Top *19-21/32* Bottom *7-8/32*

Pitch of stays to ditto: Sides *7 1/2" x 7 1/2"* Back *7 1/2" x 7 1/2"* Top *9 1/2" x 7 1/2"* Bottom *8" x 7 1/2"* Are stays fitted with nuts or riveted heads *Nuts* Working pressure by rules *209 lbs*

Material of stays *Steel* Diameter at smallest part *1 1/2" x 1 1/2"* Area supported by each stay *57 1/2"* Working pressure by rule *232 lbs* plates in steam space:

Material *Steel* Thickness *1/8"* Pitch of stays *18 1/2" x 15 1/4"* How are stays secured *Nuts & Washers* Working pressure by rules *238 lbs* Material of stays *Steel*

Diameter at smallest part *2 1/2" x 2 1/2"* supported by each stay *280 1/2 sq in* Working pressure by rule *225 lbs* Material of Front plates at bottom *Steel* with *15 Baubley*

Thickness *1/8"* Material of Lower back plate *Steel* Thickness *1/8"* Greatest pitch of stays *12 1/4"* Working pressure of plate by rule *416 lbs*

Diameter of tubes *2 1/2"* Pitch of tubes *3 1/4" x 3 1/4"* Material of tube plate *Steel* Thickness: Front *1/16"* Back *1/16"* Mean pitch of stays *7 1/2" x 7 1/2"*

Pitch across wide water spaces *13 1/2"* Working pressures by rules *386 lbs* How are chamber tops secured *Washers* Material *Iron* Depth and thickness of girder at centre *9" (8" x 2)* Length as per rule *29 1/2"* Distance apart *8" x 9 1/2"* Number and pitch of stays in each *3-7 1/2"*

Working pressure by rules *215 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 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



