

Port of *Belfast*

Received at London Office

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No. in Survey held at
Reg. Book.
on theDate first Survey *Feb. 24th 1905* Last Survey *Jan. 11th 1906*(Number of Visits *69*)Tons { Gross *7654*
Net *4928*Master *S. B. Manipur* Built at *Belfast* By whom built *Harland & Wolff* When built *1906*Engines made at *Belfast* By whom made *Harland & Wolff* when made *1906*Boilers made at *Belfast* By whom made *Harland & Wolff* when made *1906*Registered Horse Power *685* Owners *J. F. Brockbank* Port belonging *Liverpool*Nom. Horse Power as per Section 28 *685* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*

ENGINES, &c.—Description of Engine *Single Screw Quadruple Expansion* No. of Cylinders *4* No. of Cranks *4*
 Dia. of Cylinders *26½-39½-56-78½* In of Stroke *54* Revs. per minute *71* Dia. of Screw shaft as per rule *15.83* Material of screw shaft *as fitted 16.25*
 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 *✓* If two liners are fitted, is the shaft lapped or protected between the liners *✓* Length of stern bush *64*
 Dia. of Tunnel shaft as per rule *14.54* Dia. of Crank shaft journals as per rule *15.33* Dia. of Crank pin *16* Size of Crank webs *21½ x 14* of thrust shaft under collars *15½* Dia. of screw *18-6* Pitch of screw *20-0* No. of blades *4* State whether moveable *Yes* Total surface *95½ sq ft.*
 No. of Feed pumps *1* Diameter of ditto *5½* Stroke *30* Can one be overhauled while the other is at work *✓*
 No. of Bilge pumps *2* Diameter of ditto *5* Stroke *30* Can one be overhauled while the other is at work *Yes*
 No. of Donkey Engines *See other sheet* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room *5-1½ 3-2½* In Holds, &c. *9-3½ 5-2½*

No. of bilge injections *1* sizes *9½* Connected to condenser, or to circulating pump *Pumps* 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 *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 *Both*
 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 *Before launching* Is the screw shaft tunnel watertight *Stitch to be*
 Is it fitted with a watertight door *Yes* worked from *E. Room Top platform*

BOILERS, &c.—(Letter for record *5*) Total Heating Surface of Boilers *N. End 8142 sq ft. S. End 4212 sq ft.* Forced draft fitted *No*
 No. and Description of Boilers *2. N. End. Cylind.* Working Pressure *215 lbs* Tested by hydraulic pressure to *430 lbs*
 Date of test *10-1-05* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *N. End 1156 sq ft. S. End 577 sq ft.* Description of safety valves to each boiler *3- Ratchet Spring* Area of each valve *9.62 sq in* pressure to which they are adjusted *215 lbs* Are they fitted with easing gear *Yes*
 Smallest distance between boilers or uptakes and bunkers or woodwork *Plant 4 ft* Mean dia. of boilers *4'-5½* Length *18'-9* Material of shell plates *Steel*
 Thickness *1½* Range of tensile strength *29-32* Are they welded or flanged *No* Descrip. of riveting: cir. seams *Lap or Long. seams* Butts *Double*
 Diameter of rivet holes in long. seams *1½* Pitch of rivets *10* Lap of plates or width of butt straps *22½*
 Per centages of strength of longitudinal joint rivets *93.2* plate *84.3* Working pressure of shell by rules *246 lbs* Size of manhole in shell *16" x 12"*
 Size of compensating ring *M. Keils* No. and Description of Furnaces in each boiler *6- Reighton* Material *Steel* Outside diameter *46½*
 Length of plain part top *4* bottom *11* Thickness of plates crown *3½* bottom *3½* Description of longitudinal joint *Weld* No. of strengthening rings *4. 8 ft on top*
 Working pressure of furnace by the rules *244 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *19* Back *✓* Top *19* Bottom *3*
 Pitch of stays to ditto: Sides *7½ x 7* Back *✓* Top *7½ x 7½* If stays are fitted with nuts or riveted heads *Nuts in sides* Working pressure by rules *216 lbs*
 Material of stay *Steel* Diameter at smallest part *1½* Area supported by each stay *54½ in* Working pressure by rules *218 lbs* End plates in steam space:
 Material *Steel* Thickness *1½* Pitch of stays *16 x 14* How are stays secured *Nuts in ends* Working pressure by rules *286 lbs* Material of stay *Steel*
 Diameter at smallest part *2½. 2½* Area supported by each stay *232 sq in* Working pressure by rule *240 lbs* Material of Front plates at bottom *Steel*
 Thickness *1½* Material of Lower back plate *✓* Thickness *✓* Greatest pitch of stays *✓* Working pressure of plate by rules *✓*
 Diameter of tubes *2½* Pitch of tubes *4 x 4* Material of tube plates *Steel* Thickness: Front *15 x 7* Back *4* Mean pitch of stays *8 x 8*
 Pitch across wide water spaces *14* Working pressures by rules *338 lbs* Chamber tops: Material *Iron* Depth and thickness of girder at centre *9 x 8 x 2* Length as per rule *49½* Distance apart *7½* Number and pitch of Stays in each *6-7½*
 Working pressure by rules *299 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

DONKEY BOILER— No. Description
Made at By whom made When made Where fixed
Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves
No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler
Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile strength
Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets
Lap of plating Per centage of strength of joint Rivets Thickness of shell crown plates Radius of do. No. of Stays to do.
Diam. of stays. Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of joint
Thickness of furnace crown plates Stayed by Working pressure of shell by rules
Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:—

Leather Sheet

The foregoing is a correct description,

Harland & Wolff Ltd. Manufacturer.

Dates of Survey while building
During progress of work in shops—
During erection on board vessel—
Total No. of visits—
Is the approved plan of main boiler forwarded herewith—
" " " donkey " " "

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel, which is a duplicate of that fitted on the S.S. Malakand, has been constructed under Special License, and in accordance with the Rules. The materials and workmanship are of good description, and on trial under steam in Belfast Lough, it worked satisfactorily. In my opinion, it is eligible for record.

It is submitted that this vessel is eligible for THE RECORD L.M.C. 1.06 ELEC. LIGHT.

The amount of Entry Fee. £ 3 : - :
Special £ 54 : 5 :
Donkey Boiler Fee £ : :
Travelling Expenses (if any) £ : :
When applied for, 18-1-19-06
When received, 26/1/06

Committee's Minute

Assigned

Engineer (Surveyor to Lloyd's Register of British & Foreign Shipping.)



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