

REPORT ON MACHINERY.

Port of *London*Received at London Office *TUES 5 JAN 1897*

No. in Survey held at *London* Date, first Survey *12 May '96* Last Survey *5th Jan 1897*
 Reg. Book. *on the "H.M.S. T. T. Wmzimvubu"* (Number of Visits *22*)
 Master *M. Farlane* Built at *London* By whom built *Edwards & Co* Tons Gross *150* Net *90*
 Engines made at *London* By whom made *J. A. Young & Son* When built *1896*
 Boilers made at *"* By whom made *"* when made *1896*
 Registered Horse Power *70* Owners *J. H. Mills & Co* Port belonging to *London*
 Nom. Horse Power as per Section 28 *63 37* Is Electric Light fitted *No.*

ENGINES, &c.—Description of Engines *Comp. Surface Condensing* No. of Cylinders *Two* No. of Cranks *Two*
 Diameter of Cylinders *10 1/2* Length of Stroke *15* Revolutions per minute *180* Diameter of Screw shaft *3 7/8*
 Diameter of Tunnel shaft *3 7/8* Diameter of Crank shaft journals *3 7/8* Diameter of Crank pin *3 7/8* Size of Crank webs *4 3/4 x 2 7/8*
 Diameter of screw *4-9* Pitch of screw *7 3* No. of blades *3* State whether moveable *Total surface 261-12 1/2*
 No. of Feed pumps *One* Diameter of ditto *1 7/8* Stroke *7 1/2* Can one be overhauled while the other is at work *Yes*
 No. of Bilge pumps *One* Diameter of ditto *1 7/8* Stroke *7 1/2* Can one be overhauled while the other is at work *Yes*
 No. of Donkey Engines *One* Sizes of Pumps *3' dia x 8" Hk* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room *Three 2" dia* In Holds, &c. *One 2" dia 6' Fore & after Tanks*
 No. of bilge injections *1* sizes *2* Connected to condenser, or to circulating pump *Later Is a separate donkey suction fitted in Engine room & size 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 *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 *New* Is the screw shaft tunnel watertight *Yes*
 Is it fitted with a watertight door *No* worked from *Access 4 Tunnels from Hold only*

BOILERS, &c.—(Letter for record *a*) Total Heating Surface of Boilers *880* Is forced draft fitted *No*
 No. and Description of Boilers *One Multi-tubular* Working Pressure *100 lb* Tested by hydraulic pressure to *200 lb*
 Date of test *16/10/96* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *40 sq ft* No. and Description of safety valves to
 each boiler *Two Spring* Area of each valve *4.9 sq in* Pressure to which they are adjusted *100 lb* Are they fitted
 with easing gear *Yes* Smallest distance between boilers or uptakes and bunkers or woodwork *about 8"* Mean diameter of boilers *10-0*
 Length *9-2* Material of shell plates *Steel* Thickness *7/8* Description of riveting: circum. seam *Lap. D Riv* long. seams *AB. Riv*
 Diameter of rivet holes in long. seams *7/8* Pitch of rivets *3.562* Lap of plates or width of butt straps *10"*
 Per centages of strength of longitudinal joint rivets *80.0* Working pressure of shell by rules *100.5 lb* Size of manhole in shell *16 x 12*
 Size of compensating ring *Plate 5/8* No. and Description of Furnaces in each boiler *Two Plain* Material *S* Outside diameter *4'0*
 Length of plain part *6-0* Thickness of plates *9/16* Description of longitudinal joint *Welded* No. of strengthening rings *None*
 Working pressure of furnace by the rules *112 lb* Combustion chamber plates: Material *S* Thickness: Sides *1/2* Back *1/2* Top *3/4* Bottom *1/2*
 Pitch of stays to ditto: Sides *8 x 8* Back *7 1/2 x 6 1/2* Top *None* If stays are fitted with nuts or riveted heads *Riv Heads* Working pressure by rules *100 lb*
 Material of stays *Iron* Diameter at smallest part *1 1/32* Area supported by each stay *50 sq in* Working pressure by rules *118 1/2 lb* End plates in steam space:
 Material *S* Thickness *5/8* Pitch of stays *12 x 11* How are stays secured *By 6 Rivets* Working pressure by rules *138 9/16 lb* Material of stays *Iron*
 Diameter at smallest part *2* Area supported by each stay *132 sq in* Working pressure by rules *142 lb* Material of Front plates at bottom *S*
 Thickness *9/16* Material of Lower back plate *S* Thickness *9/16* Greatest pitch of stays *261-10* Working pressure of plate by rules *109 lb*
 Diameter of tubes *3* Pitch of tubes *4 1/4 x 4* Material of tube plates *S* Thickness: Front *5/8* Back *5/8* Mean pitch of stays *8 1/2 x 8*
 Pitch across wide water spaces *2 x 8 1/2* Working pressures by rules *—* Girders to Chamber tops: Material *None* Depth and
 thickness of girder at centre *—* Length as per rule *—* Distance apart *—* Number and pitch of Stays in each *—*
 Working pressure by rules *—* 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 *—*

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DONKEY BOILER— 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 _____
 Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
 Description of riveting long. seams _____ Diameter 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. _____
 Dia. 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:—

In addition to the Gear required by Rules the following articles have been supplied:— Two Propellers Ten Feet for Condenser Six Inch Ring Bolt, Spare Cing Pump Valves and Springs for Safety and Pump Escape Valves.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - From 12th May '96 to 3rd December '96.
 { During erection on board vessel - - From 3rd December '96 to 5th January 1897.
 Total No. of visits _____

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

The Machinery of this Vessel has been constructed under Special Survey. The material and Workmanship are good and Satisfactory.

The Engine and Boiler of this Vessel are in good order and in good Working Condition and in my opinion eligible to be notified in The Register Book + L.M.C. 1. '97.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 1. '97.

R.S.
5.1.97

R.S.
5/1/97

The amount of Entry Fee.. £ 1 : - : When applied for, _____
 Special (£8:0:0) £ 89:00:0 5 Jan 97
 Donkey Boiler Fee .. £ - : - : When received, _____
 Travelling Expenses (if any) £ - : - : 5/1/97

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

Committee's Minute

Assigned

TUES 5 JAN 1897

+ L.M.C. 1. '97



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Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)