

REPORT ON MACHINERY.

*40965

No. _____ (Received in London Office 8. 12. 1881)

No. in Survey held at London & Birmingham Date, first Survey 28 Oct. Last Survey 30 Nov 1881
 Reg. Book. _____

on the Screw Tug Alata Tons _____

Master _____ Built at Deptford When built 1881

Engines made at Soho Birmingham By whom made J. Watt & Co when made 1881

Boilers made at Soho Birmingham By whom made J. Watt & Co when made 1881

Registered Horse Power 35 Owners _____ Port belonging to _____

ENGINES, &c.—

Description of Engines Inverted directacting compound surface condensing

Diameter of Cylinders 16" & 28" Length of Stroke 18" No. of Rev. per minute _____ Point of Cut off, High Pressure 1/6 to 1/8 Low Pressure 1/6 to 1/8

Diameter of Screw shaft 5" Diameter of Tunnel shaft 5" Diameter of Crank shaft journals 5 1/2" Diameter of Crank pin 5 1/2" size of Crank webs 7 x 4 1/2"

Diameter of screw 7 1/8" Pitch of screw 10' 0" No. of blades 3 state whether moveable no total surface _____

No. of Feed pumps one diameter of ditto 1 1/4 Stroke 18" Can it be overhauled while the other is at work yes

No. of Bilge pumps one diameter of ditto 1 1/4 Stroke 18" Can it be overhauled while the other is at work yes

Where does water pump from Engine room, fore and aft hold bilges.

No. of Donkey Engines one Size of Pumps 2 1/2" Where does water pump from Sea and bilges of engine room & fore and aft hold and from aft tank.

Are all the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible no

No. of bilge injections one and sizes 3 1/2 Are they connected to condenser, or to circulating pump circulating pump, which also pumps out of aft tank

How are the pumps worked by crosshead of High Press Cylinder, direct from Low Press Cylinder

Are all connections with the sea direct on the skin of the ship Kumpton tubes Are they Valves or Cocks Valves

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 accessible at all times yes

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection 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 and fitted with a sluice door no worked from A short tunnel draining into engine room.

BOILERS, &c.—

Number of Boilers one Description cylindrical return multitubular

Working Pressure 75 lbs Tested by hydraulic pressure to 150 lb. Date of test 9 Nov. 1881. No 59

Description of superheating apparatus or steam chest None

Can each boiler be worked separately _____ Can the superheater be shut off and the boiler worked separately _____

No. of square feet of fire grate surface in each boiler 22 1/2 sq ft Description of safety valves Spring

No. to each boiler two area of each valve 7 sq in Are they fitted with easing gear yes

No. of safety valves to superheater _____ area of each valve _____ are they fitted with easing gear _____

Smallest distance between boilers and bunkers or woodwork _____

Diameter of boilers 102 Length of boilers 8' 6" description of riveting of shell long. seams double riv butt circum. seams double riv lap.

Thickness of shell plates 5/8" diameter of rivet holes 3/4 whether punched or drilled punched pitch of rivets 2 1/2"

Lap of plating 3 7/8" per centage of strength of longitudinal joint 70% working pressure of shell by rules 44 lb.

Size of manholes in shell 12" x 15" size of compensating rings 7 1/2" x 5/8"

No. of Furnaces in each boiler two outside diameter 30 7/8" length, top 5' 6" bottom 8' 0"

Thickness of plates 7/16" description of joint welded if rings are fitted yes greatest length between rings 5' 0"

Working pressure of furnace by the rules 110 lb.

Combustion chamber plating, thickness, sides 1/2" back 1/2" top 1/2"

Pitch of stays to ditto sides 8 1/2" back 8 1/2" top 8 1/2"

If stays are fitted with nuts or riveted heads rivet heads working pressure of plating by rules 89 lb.

Diameter of stays at smallest part 1 1/4" outside diam working pressure of ditto by rules 90 lb.

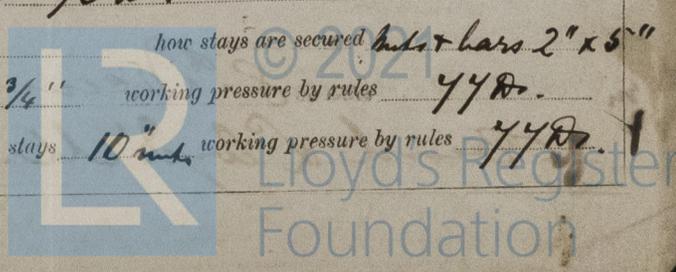
End plates in steam space, thickness 3/4" in Smoke box 1/2" back pitch of stays to ditto 11" x 13" how stays are secured nut & bars 2" x 5"

Working pressure by rules 78 lb. diameter of stays at smallest part 1 1/2" & 1 3/4" working pressure by rules 44 lb.

Front plates at bottom, thickness 3/4" Back plates, thickness 1/2" greatest pitch of stays 10" in working pressure by rules 44 lb.

LONDON No. 8, 2000

LONDON 199101



Diameter of tubes $3''$ pitch of tubes $4\frac{1}{2}''$ thickness of tube plates, front $\frac{3}{16}''$ back $\frac{3}{16}''$
 How stayed *Stay Tubes* pitch of stays $13\frac{1}{2} \times 13\frac{1}{2}$ width of water spaces $5\frac{1}{2}''$
 Diameter of Superheater or Steam chest $30''$ length *height* $2' 6''$ 40965 +
 Thickness of plates $5/8''$ description of longitudinal joint *welded* diameter of rivet holes _____ pitch of rivets _____
 Working pressure of shell by rules *ample* Diameter of flue _____ thickness of plates _____
~~If stiffened with rings~~ distance between rings _____ Working pressure by rules _____
 End plates of superheater, or steam chest; thickness $5/8$ How stayed *curved and one stay*
 Superheater or steam chest; how connected to boiler *Flanged and riveted*

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 _____
 If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____
 Diameter of donkey boiler _____ length _____ description of riveting _____
 thickness of shell plates _____ diameter of rivet holes _____ whether punched or drilled _____
 pitch of rivets _____ lap of plating _____ per centage of strength of joint _____
 thickness of crown plates _____ stayed by _____
 Diameter of furnace, top _____ bottom _____ length of furnace _____
 thickness of 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 plates _____ thickness of water tubes _____

The foregoing is a correct description,

Manufacturer. *James Watt & Co*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery and boiler were not examined during construction as no notice had been received till they were fixed in the vessel. The dimensions of the boiler and machinery are the same as those of the Screw Tug "London" engine by Messrs James Watt & Co and appear to be of good quality and workmanship and are in my opinion eligible to have the notification Lloyd's M.C. 11.6 recorded in the Register Book.*)

It is submitted that this vessel is eligible to have the notification Lloyd's M.C. recorded in the Register Book
M. J. 8/12/81

The amount of Entry Fee .. £ 1 : : : received by me,
 Special $8/12/81$.. £ 6 : 6 : -
 Certificate (if required) .. £ : : 2 : 6 $10/12/81$
To be sent as per margin.
(Travelling Expenses, if any, £ _____)

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

Committee's Minute *8th December* 1881
Edward Lloyd M.C.

