

REPORT ON MACHINERY.

5465

No. in Survey held at *Hull* Date, first Survey *Aug 17 83* Last Survey *February 1884*
 eg. Book. " " (Number of Visits *17*)
 on the *iron steam ship* **ELSY** Tons *64.64*
 Master *Hull* Built at *Hull* By whom built *Edward Hales* When built *1883*
 Engines made at *Hull* By whom made *Edward Hales* when made *1883*
 Boilers made at *d.* By whom made *d.* when made *1883*
 Registered Horse Power *20* Owners *Allcock & Barlin* Port belonging to *Hull*

ENGINES, &c.—
 Description of Engines *Vertical inverted Cylinders. Compound. surface Condensing.*
 Diameter of Cylinders *11" + 22"* Length of Stroke *15"* No. of Rev. per minute *100* Point of Cut off, High Pressure *7/8* Low Pressure *7/8*
 Diameter of Screw shaft *4"* Diam. of Tunnel shaft *X* Diam. of Crank shaft journals *4"* Diam. of Crank pin *4"* size of Crank webs *5" x 2 15/16"*
 Diameter of screw *6' 0"* Pitch of screw *6 5/8 to 10 1/2* No. of blades *4* state whether moveable *no* total surface *10.6'*
 No. of Feed pumps *one* diameter of ditto *2"* Stroke *10"* Can one be overhauled while the other is at work *X*
 No. of Bilge pumps *one* diameter of ditto *2"* Stroke *10"* Can one be overhauled while the other is at work *X*
 Where do they pump from *main compartments (Engine room & hold)*
 No. of Donkey Engines *one* Size of Pumps *2 1/8" x 4" Stroke* Where do they pump from *Stowage & Sea. Engine room.*
Hold & Tank. with delivery to boiler, deck, overboard & 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 *yes*
 No. of bilge injections *one* and sizes *2 1/4"* Are they connected to condenser, or to circulating pump *to circulating pump*
 How are the pumps worked *by rocking levers from the piston rod crosshead*
 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 *X*
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times *yes in engine room*
 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 *now new*
 Is the screw shaft tunnel watertight *no found and fitted with a sluice door* Engines are right off worked from *—*

BOILERS, &c.—
 Number of Boilers *one* Description *circular, multitubular* Whether Steel or Iron *iron*
 Working Pressure *80 lbs* Tested by hydraulic pressure to *160 lbs* Date of test *27th November 1883*
 Description of superheating apparatus or steam chest *none fitted*
 Can each boiler be worked separately *X* Can the superheater be shut off and the boiler worked separately *no superheater*
 Area of square feet of fire grate surface in each boiler *17.5* Description of safety valves *Spring loaded* No. to each boiler *2*
 Area of each valve *6 1/2 sq. in.* Are they fitted with easing gear *yes* No. of safety valves to superheater *X* area of each valve *4*
 Are they fitted with easing gear *X* Smallest distance between boilers and bunkers on *woodwork* *10* Diameter of boilers *8' 0"*
 Length of boilers *7' 2"* description of riveting of shell long. seams *4 rows of rivets in circum. seams double rivet lap* Thickness of shell plates *7/8"*
 Diameter of rivet holes *15/16"* whether punched or drilled *punched* pitch of rivets *5"* Lap of plating *9"*
 Percentage of strength of longitudinal joint *80* working pressure of shell by rules *85* size of manholes in shell *16" x 12"*
 No. of compensating rings *28" x 24" x 5/8* No. of Furnaces in each boiler *2*
 Inside diameter *30"* length, top *4' 8"* bottom *6' 6"* thickness of plates *7/16"* description of joint *buted with abt* if rings are fitted *no*
 Greatest length between rings *6' 6"* working pressure of furnace by the rules *87 1/2* combustion chamber plating, thickness, sides *1/2"* back *7/16"* top *1/2"*
 Thickness of stays to ditto, sides *9 3/4" x 6 1/2"* back *8 1/2" x 7 1/2"* top *9" x 8"* If stays are fitted with nuts or riveted heads *nuts* working pressure of plating by rules *80 1/2*
 Diameter of stays at smallest part *1 1/16" + 1 5/16"* working pressure of ditto by rules *83 1/2* end plates in steam space, thickness *5/8"*
 Thickness of stays to ditto *12 1/2" x 12 1/2"* how stays are secured *abtnuts & washers* working pressure by rules *89 1/2* diameter of stays at smallest part *17/8"* working pressure by rules *106 1/2* Front plates at bottom, thickness *1/2"* Back plates, thickness *5/8"*
 Greatest pitch of stays *12"* working pressure by rules *83 1/2* Diameter of tubes *3 3/4"* pitch of tubes *4 1/4"* thickness of tube plates, front *5/8"* back *11/16"* how stayed *30 stay tubes* pitch of stays *12 1/4" in mid* width of water spaces
 Diameter of Superheater or Steam chest *—* length *—* thickness of plates *—* description of longitudinal joint *—* diam. of rivet holes *—*
 Thickness of rivets *—* working pressure of shell by rules *—* 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 *—* how stayed *—*
 Superheater or steam chest; how connected to boiler *None fitted*

DONKEY BOILER—

Description

No donkey boiler in this case

Made at _____ by whom made _____ when made _____ where fixed _____
Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ fire grate area _____
valves _____ No. of safety valves _____ area of each _____ if fitted with easing gear _____ description of _____
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 _____

SPARE GEAR. State the articles supplied:— *2 top & 2 bottom Connecting rod Bolts. 2 main bearing Bolts.
1 set coupling bolts. 1 set of 1/2" dia pump valves - 24 bolts nuts & some pieces of iron associated
(Spare gear prepared on ship. - to be placed on board on vessel's return)*

The foregoing is a correct description,

Edward Wales

Manufacturer.

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

*Workmanship sufficiently good. The machinery & boiler are now in my
opinion in safe working condition and the case is respectfully submitted
for the notification of L.M.C. in the Register Book*

The amount of Entry Fee £ 1 : 0 : 0 received by me,
Special .. £ 8 : 0 : 0
Donkey Boiler Fee .. £ 0 : 0 : 0
Certificate (if required) .. £ 0 : 0 : 0
To be sent as per margin.
(Travelling Expenses, if any, £ ..)

Committee's Minute

FRIDAY 23 MARCH 1884

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