

REPORT ON MACHINERY.

209

THURS. 10 NOV 1892

No. 5394

Port of Bristol

Received at London Office 18

No. in Survey held at Bristol
Reg. Book.

Date, first Survey 28 May Last Survey 1891
(Number of Visits 29)

744 on the S.S. Olive

Gross 114.20
Net 108
Tons

Master Geo. Thos. Fisher Built at Manx By whom built Manx Graving Dock & Ship Co. (Ld) When built 1891

Engines made at Manx By whom made Manx Graving Dock & Ship Co. when made 1891

Boilers made at Bristol By whom made Messrs. G. K. Stothard & Co. when made 1891

Registered Horse Power 80 Owners Manx Railway Co. Port belonging to Manx Port of Cardiff

ENGINES, &c.—

Description of Engines _____ No. of Cylinders _____

Diam. of Cylinders _____ Length of Stroke _____ Rev. per minute _____ Point of Cut off, High Pressure _____ Low Pressure _____

Diameter of Screw shaft _____ Diam. of Tunnel shaft _____ Diam. of Crank shaft journals _____ Diam. of Crank pin _____ size of Crank webs _____

Diameter of screw _____ Pitch of screw _____ No. of blades _____ state whether moveable _____ total surface _____

To. of Feed pumps _____ diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____

To. of Bilge pumps _____ diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____

Where do they pump from _____

To. of Donkey Engines _____ Size of Pumps _____ Where do they pump from _____

Are all the bilge suction pipes fitted with roses _____ Are the roses always accessible _____ Are the sluices on Engine room bulkheads always accessible _____

To. of bilge injections _____ and sizes _____ Are they connected to condenser, or to circulating pump _____

How are the pumps worked _____

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

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates _____ Are the discharge pipes above or below the deep water line _____

Are they each fitted with a discharge valve always accessible on the plating of the vessel _____ Are the blow off cocks fitted with a spigot and brass covering plate _____

What pipes are carried through the bunkers _____ How are they protected _____

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times _____

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges _____

When were stern tube, propeller, screw shaft, and all connections examined in dry dock _____

Is the screw shaft tunnel watertight _____ and fitted with a sluice door _____ worked from _____

BOILERS, &c.—

To. of Boilers one Description Cylindrical Multitubular Material Steel throughout Letter (for record) S

Forking Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test 3rd November 1891

Description of superheating apparatus or steam chest Nil

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

To. of square feet of fire grate surface in each boiler 52.6 Description of safety valves Spring loaded No. to each boiler two

Area of each valve 14.15" 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 15 in. Diameter of boilers 10.3"

Length of boilers 13.8" description of riveting of shell long. seams double butt strap circum. seams double lap Thickness of shell plates 5/8"

Diameter of rivet holes 7/8" whether punched or drilled drilled pitch of rivets 3 5/8" Lap of plating 4 1/2"

Percentage of strength of longitudinal joint 75.8 working pressure of shell by rules 96.2 size of manholes in shell 16" x 12"

Size of compensating rings 27 diam. x 5/8" No. of Furnaces in each boiler 4 Description of Furnaces plain

Outside diameter 34 15/16" length 5.3" thickness of plates 7/16" description of joint double butt strap if rings are fitted 1/2" ramp

Greatest length between rings 4.6" working pressure of furnace by the rules 93 lbs combustion chamber plating, thickness, sides 7/16" back 1/2" top 1/2"

Pitch of stays to ditto, sides 8" back 8" top 8" If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 84.2 Diameter of stays at smallest part 1 1/16" working pressure of ditto by rules 111 lbs end plates in steam space, thickness 23/32"

Pitch of stays to ditto 16" x 15" how stays are secured double nut with riveted washer working pressure by rules 103 diameter of stays at smallest part 1 7/8" working pressure by rules 97 Front plates at bottom, thickness 7/8" Back plates, thickness 5/8"

Greatest pitch of stays 8" working pressure by rules Diameter of tubes 3" pitch of tubes 4 1/4" x 4 1/2" thickness of tube plates, front 23/32" back 5/8" how stayed stay tube pitch of stays 12 3/4" width of water spaces 6" x 7"

Diameter of Superheater or Steam chest length thickness of plates description of longitudinal joint diam. of rivet holes

Pitch 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

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 valves _____

No. of safety valves _____ area of each _____ if fitted with easing gear _____ if steam from main boilers _____

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:—

The foregoing is a correct description,
E. H. Stothard Manufacturer.

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

This Steel Boiler has been constructed under Special Survey, the materials used have been tested in accordance with the Rules, the workmanship is good.

The boiler was tested by water to twice its working pressure and proved satisfactory under test.

The Safety valves adjusted under steam to a working pressure of 80 lbs per sq. in.

The amount of Entry Fee .. £ : : received by me,

Special £ 4 : 0 : 0

Donkey Boiler Fee £ : : :

Certificate (if required) .. £ : : : 5th October 1892

To be sent as per margin.

(Travelling Expenses, if any, £ _____)

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

Wm. B. Taylor

Committee's Minute _____

TUES. 13 DEC 1892