

REPORT ON MACHINERY.

No. 3201

Received at London Office WEDNES. 17 MARCH 1886

No. in Survey held at Belfast

Date, first Survey 2nd Oct. 1883 Last Survey 12 March 1886

Reg. Book.

(Number of Visits)

Wrecked on the Auxiliary Boiler of the L.I. Iron

Tons

Master Built at Belfast By whom built Harland & Wolff When built 1883-6

Engines made at By whom made when made

Boilers made at By whom made when made

Registered Horse Power Owners Port belonging to

ENGINES, &c.—

Description of Engines

Diameter of Cylinders Length of Stroke No. of 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

No. of Feed pumps diameter of ditto Stroke Can one be overhauled while the other is at work

No. of Bilge pumps diameter of ditto Stroke Can one be overhauled while the other is at work

Where do they pump from

No. 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

No. 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.—for Steam Locomotives and Auxiliary purposes.

Number of Boilers One Description Cylindrical Multi-tubular Whether Steel or Iron Steel

Working Pressure 57 lbs Tested by hydraulic pressure to 109 lbs Date of test 8th January 1886

Description of superheating apparatus or steam chest Cylindrical Dome

Can each boiler be worked separately Can the superheater be shut off and the boiler worked separately No superheater

No. of square feet of fire grate surface in each boiler 24.7 Description of safety valves Lock-burner No. to each boiler Two 3rd

Area of each valve 707 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 boiler 9'-0

Length of boilers 8'-0 description of riveting of shell long. seams Lap & fillet circum. seams Lap & fillet Thickness of shell plates 7/8

Diameter of rivet holes 7/8 whether punched or drilled drilled pitch of rivets 2.825 Lap of plating 1 1/4

Per centage of strength of longitudinal joint 69.02 working pressure of shell by rules 68.7 lbs size of manholes in shell 15 x 12

Size of compensating rings 22" x 19" x 3/8 No. of Furnaces in each boiler 200

Outside diameter 2-10 length, top 5.3 1/4 bottom 7-3 thickness of plates 7/16 description of joint of tubes butt & lap if rings are fitted No

Greatest length between rings working pressure of furnace by the rules 69.6 lbs combustion chamber plating, thickness, sides 7/16 back 7/16 top 7/16

Pitch of stays to ditto, sides 11 1/2 x 10 back 11 1/2 x 10 top 10 x 10 If stays are fitted with nuts or riveted heads nuts working pressure of plating by

rules 43 Diameter of stays at smallest part 1 1/2 working pressure of ditto by rules 61 lbs end plates in steam space, thickness 7/8

Pitch of stays to ditto 18 x 18 how stays are secured 4 1/2 x 10 x 10 working pressure by rules 49.08 lbs diameter of stays at

smallest part 2 1/4 working pressure by rules 73.2 lbs Front plates at bottom, thickness 7/8 Back plates, thickness 7/8

Greatest pitch of stays 11 1/2 x 10 working pressure by rules 94 Diameter of tubes 3 1/4 pitch of tubes 4 1/2 x 4 1/2 thickness of tube

plates, front 7/8 back 7/8 how stayed Stay tubes pitch of stays 9 x 9 width of water spaces 1 1/2 x 1 1/2

Diameter of Superheater or Steam chest 3-0 length 9-0 thickness of plates 7/8 description of longitudinal joint Lap & fillet diam. of rivet holes 3/4

Pitch of rivets 9.68 working pressure of shell by rules 150 lbs 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 1/2 how stayed Two Gussel-

Stays to each end Plate dished 16 1/2 Superheater or steam chest; how connected to boiler Neck piece 14 dia x 7/8 thick

36 radius

BE-53-0207-1

State if Report is also sent on the Hull of the Ship

Form No. 8-100-97/84-Transfer Ink.



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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 _____ 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 _____

SPARE GEAR. State the articles supplied :—

The foregoing is a correct description,

Manufacturer.

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

At the undenoted date of the progress of the work upon this boiler the survey was transferred to Mr Maxton. Shell riveted and one end plate fitted, internal plating flanged and drilled and furnace built. The material and workmanship, so far as the same has been examined by me, is good and satisfactory. P. Ritchie.

This Auxiliary Boiler has been completed in accordance with enclosed approved Drawing and Rules, the material and workmanship are good and satisfactory, the boiler was tested under hydraulic and steam pressures and gave entire satisfaction.

*This appears to be satisfactory
 JM 27/3/82*

The amount of Entry Fee .. £ : : received by me, }
 Special £ : : }
 Donkey Boiler Fee £ : : }
 Certificate (if required) .. £ : : 18 }
 To be sent as per margin.
 (Travelling Expenses, if any, £ _____)

Committee's Minute

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



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