

REPORT ON MACHINERY.

9237

No. 9234 Port of Glasgow Received at London Office 17 JUNE 1889
 No. in Survey held at Glasgow Date, first Survey 24th Feb 1889 Last Survey 17th May 1889
 (Number of Visits 13)
 161 on the Boiler for S.S. "Reveil" Tons 272 net
445 gross
 Master Kiley Built at Newcastle By whom built A. Leslie & Co. When built 1878
 Engines made at Gateshead By whom made Black Hawthorn & Co. when made
 Boilers made at Glasgow By whom made Messrs Lindsay Burnet & Co. when made 1889, 5
 Registered Horse Power sixty Owners M. Morris Port belonging to London

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.—

Number of Boilers one Description Cylindrical. Multit. Whether Steel or Iron Steel
 Working Pressure 85 lbs Tested by hydraulic pressure to 170 Date of test 8th May 1889
 Description of superheating apparatus or steam chest Cylindrical horizontal
 Can each boiler be worked separately ✓ Can the superheater be shut off and the boiler worked separately no
 No. of square feet of fire grate surface in each boiler 34 Description of safety valves No. to each boiler
 Area of each valve Are they fitted with easing gear 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 12' 0"
 Length of boilers 9' 6" description of riveting of shell long. seams treb lap circum. seams double lap Thickness of shell plates 3/4"
 Diameter of rivet holes 1 1/16" whether punched or drilled drilled pitch of rivets 4" Lap of plating 7/8"
 Percentage of strength of longitudinal joint 73% working pressure of shell by rules 87.4 size of manholes in shell 12" x 16"
 Size of compensating rings 4 1/2" x 7/16" No. of Furnaces in each boiler 2
 Outside diameter 3.7" length, top 6' 0" bottom 8' 9" thickness of plates 1/2" description of joint double butt if rings are fitted on bottom
 Greatest length between rings 6' 0" working pressure of furnace by the rules 866 combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"
 Pitch of stays to ditto, sides 7 7/8" back 7 7/8" top 7 7/8" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 87 Diameter of stays at smallest part 1 5/8" working pressure of ditto by rules 110 lbs end plates in steam space, thickness 1/16"
 Pitch of stays to ditto 15" x 14" how stays are secured double plates working pressure by rules 156 diameter of stays at smallest part 1 7/8" working pressure by rules 113 Front plates at bottom, thickness 1/16" Back plates, thickness 5/8"
 Greatest pitch of stays 16" working pressure by rules strengthened by a doubling plate Diameter of tubes 3 1/2" pitch of tubes 4 3/4" thickness of tube plates, front 1/16" back 5/8" how stayed tubes pitch of stays 14 1/4" width of water spaces 12' 2"
 Diameter of Superheater or Steam chest 33" length 4' 0" thickness of plates 7/16" description of longitudinal joint lap diam. of rivet holes 13/16"
 Pitch of rivets 2 1/4" working pressure of shell by rules 94 lbs diameter of ~~the~~ 11 x 14 thickness of plates 5/8" If stiffened with rings ✓
 Distance between rings ✓ working pressure by rules 9 end plates of superheater, or steam chest; thickness 7/16" how stayed 3 stays
1 3/4" diam. Superheater or steam chest; how connected to boiler single rivetted

[Form No. 2—2000—9/18/89—T. & S.—Copyright 1889.]

Description of furnaces

9237 lbs

DONKEY BOILER— Description Three tube Vertical steel
 Made at Glasgow by whom made Morrison & Graham when made 1889 where fixed
 Working pressure 85 lbs tested by hydraulic pressure to 140 lbs No. of Certificate 2268 fire grate area 7 sq ft. 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 3' 9" length 10' 6" description of riveting double lap
 Thickness of shell plates 3/8" diameter of rivet holes 7/8" whether punched or drilled _____ pitch of rivets 3/8" lap of plating 4 3/8"
 per centage of strength of joint 70% thickness of crown plates 1/2" stayed by 4 stays 2" diam.
 Diameter of furnace, top 3' 1" bottom 3' 3" length of furnace 6' 0" thickness of plates 1/2" description of joint lap
 Thickness of furnace crown plates 1/2" stayed by 4 stays 2" diam. working pressure of shell by rules 116 lbs
 Working pressure of furnace by rules 95 lbs diameter of uptake 10 thickness of plates 3/8" iron thickness of water tubes 3/8" iron

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

 Manufacturer.

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

These boilers have been inspected during the course of construction & have been made in accordance with the Rules of this Society, they have undergone a satisfactory tests by hydraulic pressure, certificates of these tests have been duly signed & sent to the manufacturers.

*It is submitted that these Boilers be considered satisfactory for a working pressure of 85 lbs per square inch
 W.A.
 17-6-89.*

The amount of Entry Fee ... £ : : received by me,
 Special ... £ 5 : 5 : :
 Donkey Boiler Fee ... £ : :
 Certificate (if required) ... £ : :
 To be sent as per margin.
 29/3/1889

(Travelling Expenses, if any, £ _____)
 Committee's Minute TUES 18 JUNE 1889
Not for Council

Charles Cooper
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
 Glasgow
 Lloyd's Register Foundation