

REPORT ON MACHINERY.

10962

No. 10962
No. in Survey held at Dumbarton
Reg. Book.

Port of Glasgow

Received at London Office
No. 21 SEP 1891

Date, first Survey March 4th 1891 Last Survey Sept 10 1891

(Number of Visits 12)
Tons } Gross 155.97
Net 81.66

Master Savage Built at Dumbarton By whom built Wm. Denny & Co. When built 1891

Engines made at Dumbarton By whom made M. Paul & Co. when made 1891

Boilers made at " By whom made " when made 1891

Registered Horse Power 24 Owners Corporation of the Trinity House Port belonging to London

ENGINES, &c.

Description of Engines Compound No. of Cylinders Two

Diam. of Cylinders 12 1/2" x 24" Length of Stroke 10" Rev. per minute 120 Point of Cut off, High Pressure " Low Pressure "

Diameter of Screw shaft 1 1/4" Diam. of Tunnel shaft 1 1/2" Diam. of Crank shaft journals 1 1/4" Diam. of Crank pin 1 1/4" size of Crank webs 2 1/2" x 6"

Diameter of screw 6" x 6" Pitch of screw 9.6" No. of blades 4 state whether movable Yes total surface 12 1/2"

No. of Feed pumps One diameter of ditto 2 1/2" Stroke 4 1/2" Can one be overhauled while the other is at work Yes when donkey pump is working

No. of Bilge pumps One diameter of ditto 2 1/2" Stroke 4 1/2" Can one be overhauled while the other is at work Yes

Where do they pump from All compartments

No. of Donkey Engines One Size of Pumps 3 1/2" x 2" x 1 1/2" Where do they pump from Sea, Bilges, Hotwell

Donkey Engine with pumps for Corporation

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 size 2 1/2" Are they connected to condenser, or to circulating pump Circulating

How are the pumps worked By Levers

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 " 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 On slip before launching

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

BOILERS, &c.

No. of Boilers One Description Round Horizontal Material Steel Letter (for record) Steel

Working Pressure 110 lbs Tested by hydraulic pressure to 220 lbs Date of test 13th July 1891

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 20 ft² Description of safety valves Direct Spring No. to each boiler Two

Area of each valve 3.14" Are they fitted with easing gear Yes No. of safety valves to superheater " area of each valve "

Are they fitted with easing gear Yes Smallest distance between boilers and bunkers or woodwork about 9" Diameter of boilers 8" x 9"

Length of boilers 8 ft² description of riveting of shell long. seams double straps circum. seams Double Thickness of shell plates 19/32"

Diameter of rivet holes 1 1/16" whether punched or drilled 83% pitch of rivets Two Lap of plating straps 8 1/2" x 4 1/2"

Per centage of strength of longitudinal joint 83% working pressure of shell by rules 128 lbs size of manholes in shell 16" x 12"

Size of compensating ring Double piece No. of Furnaces in each boiler Two Description of Furnaces plain

Outside diameter 2' 9" length 6 ft² thickness of plates 1 1/16" description of joint welded if rings are fitted no

Greatest length between rings " working pressure of furnace by the rules 119 lbs combustion chamber plating, thickness, sides 1/16" back 1/16" top 1/16"

Pitch of stays to ditto, sides 8 1/2" x 8 1/4" back 8 1/2" x 7" top 8 1/2" x 6 1/4" stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 113 lbs Diameter of stays at smallest part 1 3/8" working pressure of ditto by rules 144 lbs and plates in steam space, thickness 2 1/32"

Pitch of stays to ditto 14" x 12 1/2" how stays are secured by double nut working pressure by rules 125 lbs diameter of stays at smallest part 2" solid = 2.58 working pressure by rules 102 lbs Front plates at bottom, thickness 1/16" Back plates, thickness 1/16"

Greatest pitch of stays 12 1/4" x 7" working pressure by rules " Diameter of tubes 2 1/2" pitch of tubes 3 1/8" x 3 1/8" thickness of tube plates, front 2 1/32" back 1 1/16" how stayed by tube pitch of stays 1 1/2" x 1 1/2" width of water spaces about 6"

Diameter of Superheater or Steam chest none 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 "

(State of Report is also sent on the Hull of the Ship)

[142—L.R.P.H.—2,000.—Form No. 8.—Copyright Ink.]

Lloyd's Register Foundation

GLS163-0083

10962 gls

DONKEY BOILER— Description *No Donkey Boilers*

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:— *2 Cornet Rod bolts (top + bottom) 2 main bearing bolts, 1 set Coupling bolts, 1 set of valves for pumps assortment of bolts, nuts, springs &c. 13 Propeller blades one crank shaft one piston + one Cyto cover for each Engine*

The foregoing is a correct description, *to be kept in stock for either this or like vessel "Pioneer"*

Manufacturer. *Matthew Rankin & Co.*

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

have been built under survey. They are of good workmanship & materials and are now in good order & safe working condition and eligible in our opinion to be noted in the Register Book

Lloyds M.C. 9/91

Boiler, Laying & Log Report attached herewith

It is submitted that this vessel is eligible for the Register of British & Foreign Shipping & is hereby recommended to M.C. 9/91

Certificate (if required) to be sent to _____

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

Special £ 8 : - : -

Donkey Boiler Fee £ : - : -

(Travelling Expenses, if any, £ _____)

Committee's Minute _____

TUES. 22 SEP 1891

+ Lmb 9/91

10th Sept 1891 *James Morrison R. J. Beveridge*
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping
Clyde District