

REPORT ON MACHINERY.

10952

16 SEP. 91

No. 10952

Port of Glasgow

Received at London Office

No. in Survey held at Glasgow

Date, first Survey 24th Sept 1890 Last Survey Sept 10th 1891

Reg. Book.

(Number of Visits 26.)

In support of the S. S. Ardnamhor

Tons { Gross 2082
Net 1338

Master W. Anderson Built at Belfast By whom built Workman, Clark & Co When built 1891

Engines made at Glasgow By whom made James Howden & Co when made 1891

Boilers made at Glasgow By whom made James Howden & Co when made 1891

Registered Horse Power 200 Owners Clark & Service Port belonging to Glasgow

ENGINES, &c.—

Description of Engines Triple Expansion No. of Cylinders Three

Diam. of Cylinders 22½, 35½ & 58½ Length of Stroke 39" Rev. per minute 70 Point of Cut off, High Pressure var Low Pressure var

Diameter of Screw shaft 11½" Diam. of Tunnel shaft 11" Diam. of Crank shaft journals 11½" Diam. of Crank pin 11½" size of Crank webs built

Diameter of screw 14' 4" Pitch of screw 16 to 17 ft. No. of blades 4 state whether moveable not total surface 60 sq ft

No. of Feed pumps 2 diameter of ditto 3" Stroke 19" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 diameter of ditto 3" Stroke 19" Can one be overhauled while the other is at work yes

Where do they pump from all Compartments

No. of Donkey Engines two Size of Pumps 5½" x 5" x 3½" Where do they pump from Holbeck, sea tanks & bilges
ruis 8" x 18" x 6"

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 5½" Are they connected to condensers, or to circulating pump yes

How are the pumps worked by levers L. P. 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 —

What pipes are carried through the bunkers none 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 at Belfast

Is the screw shaft tunnel watertight yes and fitted with a sluice door yes worked from upper platform

BOILERS, &c.—

No. of Boilers Two Description Howden's Forced Dr. Arr^{mt} Material Steel Letter (for record) B.

Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs. Date of test July 4th 1891

Description of superheating apparatus or steam chest none

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

No. of square feet of fire grate surface in each boiler 37 Description of safety valves d. spring No. to each boiler two

Area of each valve Heating 1644 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 9' Diameter of boilers 12' 6"

Length of boilers 11' 0" description of riveting of shell long. seams d. butt joint circum. seams d. riv. lap Thickness of shell plates 1½"

Diameter of rivet holes 1½" whether punched or drilled drilled pitch of rivets 7½" & 3 7/8" Lap of plating 5½"

Per centage of strength of longitudinal joint 84.9 lb working pressure of shell by rules 161 lb size of manholes in shell 12" x 16"

Size of compensating rings M. Mills ring No. of Furnaces in each boiler three Description of Furnaces Purvis

Outside diameter 43" length 8' 0" thickness of plates ½" description of joint welded if rings are fitted —

Greatest length between rings — working pressure of furnace by the rules 162 lb combustion chamber plating, thickness, sides 7/8" back 9/16" top 7/8"

Pitch of stays to ditto, sides 8 1/4" back 7 3/4" top 8 1/4" If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 162 lb

Diameter of stays at smallest part 1 1/2" & 1 7/8" working pressure of ditto by rules 174 lb end plates in steam space, thickness 1" & wash.

Pitch of stays to ditto 15 1/4" x 15 1/4" how stays are secured d. nuts working pressure by rules 160 lb diameter of stays at smallest part 2 7/8" st. bars

working pressure by rules 170 lb Front plates at bottom, thickness 3/4" Back plates, thickness 3/4"

Greatest pitch of stays — working pressure by rules — Diameter of tubes 2 1/2" pitch of tubes 5 1/4" & 3 7/8" thickness of tube plates, front 3/4" back 1/16"

how stayed stayed pitch of stays 7 1/2" & 7 1/4" width of water spaces 6"

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 —

No. 8.—Copyable

Lloyd's Register Foundation

GLS163-0069

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DONKEY BOILER—

Description

Vertical with cross tubes

Made at Gateshead

by whom made

Clark, Chapman & Co

when made

1891

where fixed

Holds

Working pressure 80 lbs

tested by hydraulic pressure to 160 lbs.

No. of Certificate 3630.

fire grate area 23 ft

description of safety

valves d. spring

No. of safety valves one

area of each 9.62

if fitted with easing gear yes

if steam from main boilers can

enter the donkey boiler no

diameter of donkey boiler 7' 3"

length 12' 6"

description of riveting lap d. riv

Thickness of shell plates 1/2"

diameter of rivet holes 1 1/16"

whether punched or drilled drilled

pitch of rivets 3 1/4"

lap of plating 4 1/2"

per centage of strength of joint 71

thickness of crown plates 1/16"

stayed by nine

1 1/2" off. stays

Diameter of furnace, top 5' 11 1/2"

bottom 6' 3 1/4"

length of furnace 5' 0"

thickness of plates 5/8"

Thickness of furnace crown plates 5/8"

stayed by as shell crown

Working pressure of furnace by rules 80 lbs.

diameter of uptake 18"

SPARE GEAR.

State the articles supplied:—

Propeller and shaft complete. One piece

crank shaft. Air pump rod. Top and bottom end bolts

and brasses. Main bearing & coupling bolts. Feed and

bridge pump valves etc.

The foregoing is a correct description,

Manufacturer.

James Morrison & Co

General Remarks

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

Two Reports on Forgings are enclosed herewith

These engines & boilers have been constructed on special survey - they are of good material & workmanship - they have been well fitted on board - satisfactorily tested under steam and we are of opinion they are eligible to be classed + L.M.C 9-91 in the Register Book.

It is submitted that this vessel is eligible to have + L.M.C 9-91 recorded.
MA 21-9-91

Certificate (if required) to be sent to

The amount of Entry Fee .. £ 2 : - : - received by me,

Special .. £ 24 : 16 : -

Donkey Boiler Fee .. £

15.9 1891

(Travelling Expenses, if any, £)

Committee's Minute

TUES. 22 SEP 1891

+ Lmb 9/1

J. R. Rolison John Anderson

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



Glasgow.
Lloyd's Register
Foundation