

REPORT ON MACHINERY.

No. 3872

No. in Survey held at
Reg. Book.

on the

Port of *Glasgow*

Glasgow

Date, first Survey *2nd Sept 1890* Last Survey *20th Jan 1891*
(Number of Flats *19* t. *12*) Gross *1891*

Tons
Net

Master *Is. Green* Built at *Belfast* By whom built *Northman & Clark* When built *1891*

Engines made at *Glasgow* By whom made *Muir & Houston* when made *1891*

Boilers made at *Do.* By whom made *Do.* when made *1891*

Registered Horse Power *90* Per Rule *95* Owners Port belonging to

ENGINES, &c.—

Description of Engines *Inverted Direct Acting. Triple Expansion* No. of Cylinders *Three*

Diam. of Cylinders *16, 26, 42* Length of Stroke *30* Rev. per minute *80* Point of Cut off, High Pressure *5/8* Low Pressure *9/16*

Diameter of Screw shaft *8* Diam. of Tunnel shaft *7 3/4* Diam. of Crank shaft journals *8* Diam. of Crank pin *8* size of Crank webs *5 3/4 x 11*

Diameter of screw *Could not be ascertained* Pitch of screw No. of blades *Four* state whether moveable *Yes* total surface *✓*

No. of Feed pumps *Two* diameter of ditto *3* Stroke *15* Can one be overhauled while the other is at work *Yes*

No. of Bilge pumps *Two* diameter of ditto *3* Stroke *15* Can one be overhauled while the other is at work *Yes*

Where do they pump from *Engine Room, also Holds & Tunnel*

No. of Donkey Engines *Two* Size of Pump *Feed 6 1/2" 4 pump 6 1/2" 4* where do they pump from *Feed donkey from all compartments. Ballast engine from all compartments. Feed donkey one separate suction from bilge.*

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 *3 dia.* Are they connected to condenser, or to circulating pump *Circulating*

How are the pumps worked *By levers from 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 *Yes*

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*

Then were stern tube, propeller, screw shaft, and all connections examined in dry dock *Before launching. See Belfast Report.*

the screw shaft tunnel watertight *Yes* and fitted with a sluice door *Yes* worked from *Engine room platform.*

BOILERS, &c.—

No. of Boilers *One* Description *Cylindrical - Mult.* Material *Steel* Letter for record *S*

Working Pressure *160 lb.* Tested by hydraulic pressure to *320 lb.* Date of test *November 24th 1890.*

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 *56* Description of safety valves *Direct spring* No. to each boiler *Two*

Area of each valve *7 sq. in.* 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 *3 ft.* Diameter of boilers *13-6*

Length of boilers *10-0* description of riveting of shell long. seams *Butt. three row. circum. seams Lap. double.* Thickness of shell plates *1 3/32*

Diameter of rivet holes *1 1/4* whether punched or drilled *Drilled* pitch of rivets *7 3/4 & 3 3/8* Lap of plating *18 1/2" butt shap.*

Percentage of strength of longitudinal joint *84.3* working pressure of shell by rules *164 lb.* size of manholes in shell *16 x 11*

No. of compensating rings *None* No. of Furnaces in each boiler *Three* Description of Furnaces *Plain*

Inside diameter *42"* length *6-6* thickness of plates *3/4* description of joint *Butt.* if rings are fitted *No*

Greatest length between rings *working pressure of furnace by the rules 157 lb.* combustion chamber plating, thickness, sides *9/16* back *9/16* top *9/16*

Each of stays to ditto, sides *7 3/4 x 7 3/4* back *7 3/4 x 7 3/4* top *7 1/2 x 7 3/4* 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 3/8* working pressure of ditto by rules *165 lb.* end plates in steam space, thickness *1"*

Each of stays to ditto *15 x 15* how stays are secured *Nuts* working pressure by rules *160 lb.* diameter of stays at smallest part *2 1/2* screws working pressure by rules *160 lb.* Front plates at bottom, thickness *1 3/16* Back plates, thickness *1 3/16*

Greatest pitch of stays *✓* working pressure by rules *✓* Diameter of tubes *3 1/2* pitch of tubes *14 1/2 x 4 1/2* thickness of tube plates, front *13/16* back *13/16* how stayed *Yokes* pitch of stays *14 1/2 x 9 1/2* width of water spaces *5 1/2*

Diameter of Superheater or Steam chest *None* length *✓* thickness of plates *✓* description of longitudinal joint *✓* diam. of rivet holes *✓*

Each 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 *✓*

2019

Lloyd's Register Foundation

DONKEY BOILER— Description *Vertical. Three cross tubes.*
Made at *Glasgow* by whom made *Muir & Houston.* when made *1891* where fixed *In Blockhold.*
Working pressure *60 lb.* tested by hydraulic pressure to *120 lb.* No. of Certificate *2754* fire grate area *15 sq ft.* description of safety
valves *Direct spring.* No. of safety valves *two* area of each *3.4 sq ft.* if fitted with easing gear *yes* if steam from main boilers can
enter the donkey boiler *No.* diameter of donkey boiler *5'-0"* length *10'-6"* description of riveting *Lap - double.*
Thickness of shell plates *3/8"* diameter of rivet holes *15/16"* whether punched or drilled *Drilled* pitch of rivets *3 1/2"* lap of plating *5"*
per centage of strength of joint *73* thickness of crown plates *5/8"* stayed by *Six stays 1 3/4 dia.*
Diameter of furnace, top *3'-8"* bottom *4'-6"* length of furnace *4'-9"* thickness of plates *1 1/16"* description of joint *Lap.*
Thickness of furnace crown plates *1/2"* stayed by *Plate doiled & six stays.* working pressure of shell by rules *90 lb.*
Working pressure of furnace by rules *65 lb.* diameter of uptake *11"* thickness of plates *3/8"* thickness of water tubes *3/8"*

SPARE GEAR. State the articles supplied:— *Connecting rod top & bottom end bolts & nuts. One set*
of coupling bolts. Two main bearing bolts. Feed & bilge pump valves. Assorted
bolts, nuts &c. also three main boiler tubes. Six undersea tubes. One set of Air pump valves
one propeller.

The foregoing is a correct description,
Muir & Houston Manufacturer.

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

These engines & boilers have been constructed
under special survey. They are of good material & workmanship.
They have been well fitted on board - satisfactorily tested
under steam and I am of opinion they are eligible to be classed
+ L.M.C. 1-91 in the Register Book.

Appended hereto is the approved tracing of main boiler also two
reports on forgings.

This submitted that this vessel
is eligible to have + L.M.C. 2-91
recorded. W.A. 25-3-91

CORR

The amount of Entry Fee .. £ *1 : -* received by me,
Special .. £ *14 : 5*
Donkey Boiler Fee .. £ *-*
Certificate (if required) .. £ *-*
To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute

THURS. 26 MAR 1891

+ L.M.C. 2, 91

Walter Robson.

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

Report of Survey for Repairs, &c., of Engines & Boilers.

No. *3848*

Date of Writing Report *2nd Jan 1891* Port of *Belfast*

(Received at London Office.)

WED. 25 MAR 1891

No. in

Reg. Book. Survey held at

Belfast

Date, first Survey *12th Dec 1890*

Last Survey *19th Dec 1890*

on the Machinery of the

SS. Eveleen

Master

No. of Visits *7*

Gross

Net

Vessel built at

Belfast

By whom *Worham & Clark*

When *18*

Registered

Power

Engines made at

Glasgow

When *1891* Boilers, when made (Main)

(Donkey)

No. of Main Boilers

Team Pressure

Owners

John Milligen

Port *Belfast*

Voyage

In Donkey Boiler

If Surveyed Afloat or in Dry Dock

Specially during

Construction

Class of Vessel & Machinery *100A1*

Last Survey No.

Port

Particulars of Examination and Repairs (if any)

(State clearly the cause of Repairs if any, and, in detail, the nature and extent of Examinations and subsequent Repairs.) Repairs on account of Damage should be separated from repairs due to other causes. State also the dates and initials of any letters respecting this case

Did the Surveyor personally go inside each Boiler separately (including the Donkey Boiler, if any), and make a thorough examination at this time? this was not done, state for what reasons?

And what parts of the Boilers could not be thus thoroughly examined?

Also what special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each boiler?

This is to certify that the sea cocks and valves, the
discharge valves, the steam tube, propeller shaft & propeller
have been fitted in this vessel in accordance with the Rules
and to the Satisfaction of the undersigned.

General Observations, Opinion, and Recommendation:—

(State clearly what alteration, if any, is suggested to be made in the existing classification and notification of the vessel's machinery in the Register Book, consequent upon this survey: thus, for example, B.S. 1/89, B. & M.S. 1/89, or L.M.C. 1/89, as the case may be.)

This report is respectfully submitted for the Committee's
information when dealing with the Classification of this
Steamer.

or Registration Fee (per Sec. 27) .. £ : :
Entry Fee (per Section 28) .. £ : :
Local Damage Fee (per Section 28) .. £ : :
Certificate (if required) as per margin .. £ : :
Travelling Expenses (if chargeable) .. £ : :

Fees applied for

18

18

18

18

Jamesellaaton

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

Committee's Minute

THURS. 26 MAR 1891

signed

TUE. 10 OCT. 1916

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BEL58-0106-3