

REPORT ON MACHINERY.

No. 12646

Port of *Glasgow*

Received at London Office SAT. 30 DEC 1893

No. in Survey held at *Glasgow*
Reg. Book.

Date, first Survey *1st Decr*

Last Survey *15th Decr* 1893

(Number of Visits *2*)

405 on the

Master

Built at *Glasgow*

By whom built *W. Shaw & Sons*

Tons Gross *104*
Net *58*

When built *1877*

Engines made at *Glasgow*

By whom made *Ross & Duncan*

When made *Comp 1882*

Boilers made at *Glasgow*

By whom made *Lindsay Burnet & Co*

When made *1893*

Registered Horse Power *20*

Owners *J. E. Stewart*

Port belonging to *Glasgow*

Nom. Horse Power as per Section 28 ☒

unclassified

ENGINES, &c.—

Description of Engines

No. of Cylinders

Diameter of Cylinders Length of Stroke Revolutions per minute Diameter of Screw shaft as per rule as fitted
Diameter of Tunnel shaft as per rule as fitted Diameter of Crank shaft journals Diameter 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
No. of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room In Holds, &c.

No. of bilge injections sizes Connected to condenser, or to circulating pump Is a separate donkey suction fitted in Engine room & size
Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible
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 and all boiler mountings accessible at all times
Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication 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
Is it fitted with a watertight door worked from

BOILERS, &c.—

(Letter for record *S*)

Total Heating Surface of Boilers *295.709 sq ft*

No. and Description of Boilers *One cylindrical multitubular* Working Pressure *80 lbs* Tested by hydraulic pressure to *160 lbs*
Date of test *15/12/93* Can each boiler be worked separately ☒ Area of fire grate in each boiler *11.8 sq ft* No. and Description of safety valves to each boiler ☒ Area of each valve ☒ Pressure to which they are adjusted ☒ Are they fitted with easing gear ☒ Smallest distance between boilers or uptakes and bunkers or woodwork ☒ Mean diameter of boilers *7'-0"*
Length *8'-0"* Material of shell plates *steel* Thickness *15/32* Description of riveting: circum. seams *lap single* long. seams *lap double*
Diameter of rivet holes in long. seams *13/16* Pitch of rivets *2 3/4"* Lap of plates *on width of butt straps 14"*
Per centages of strength of longitudinal joint rivets *68.3* Working pressure of shell by rules *82.7 lbs* Size of manhole in shell *11" x 15"*
Size of compensating ring *5 1/2 x 15 1/2* No. and Description of Furnaces in each boiler *one plain* Material *steel* Outside diameter *39"*
Length of plain part *top 5'-3 1/2" bottom 1'-8 1/2"* Thickness of plates *crown 3/16 bottom 5/32* Description of longitudinal joint *lapped* No. of strengthening rings *none*
Working pressure of furnace by the rules *91 lbs* Combustion chamber plates: Material *steel* Thickness: Sides *9/16* Back *9/16* Top *9/16* Bottom *9/16*
Pitch of stays to ditto: Sides *12 1/2" x 11"* Back *11" x 11"* Top *12 1/2" x 11"* If stays are fitted with nuts or riveted heads *multi* Working pressure by rules *82 lbs*
Material of stays *steel* Diameter at smallest part *1.44"* Area supported by each stay *187 1/2 sq in* Working pressure by rules *83 lbs* End plates in steam space: Material *steel* Thickness *5/8"* Pitch of stays *13 1/2" x 13"* How are stays secured *double multi turnbuckles* Working pressure by rules *101 lbs* Material of stays *steel*
Diameter at smallest part *2.03"* Area supported by each stay *189 sq in* Working pressure by rules *96 lbs* Material of Front plates at bottom *steel*
Thickness *5/8"* Material of Lower back plate *steel* Thickness *5/8"* Greatest pitch of stays *11" x 13"* Working pressure of plate by rules *94 lbs*
Diameter of tubes *3"* Pitch of tubes *4" x 4"* Material of tube plates *steel* Thickness: Front *5/8"* Back *13/32"* Mean pitch of stays *11"*
Pitch across wide water spaces *13"* Working pressures by rules *104 & 82 lbs* Girders to Chamber tops: Material *steel* Depth and thickness of girder at centre *6" x 11/16"* Length as per rule *24"* Distance apart *11 1/2"* Number and pitch of Stays in each *one 12 1/2"*
Working pressure by rules *82 lbs* Superheater or Steam chest; how connected to boiler *flanged* Can the superheater be shut off and the boiler worked separately ☒ Diameter *2'-6"* Length *2'-9"* Thickness of shell plates *3/8"* Material *steel* Description of longitudinal joint *lap SR* Diam. of rivet holes *13/16* Pitch of rivets *1 7/8"* Working pressure of shell by rules *139 lbs* Diameter of flue plates *1 1/2"* Thickness *1 1/2"* How stayed *disked*
If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness *1 1/2"* How stayed *disked*
Working pressure of end plates *209 lbs* Area of safety valves to superheater ☒ Are they fitted with easing gear ☒

GLS169-0037

12646 lbs

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 Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler

Diameter of donkey boiler Length Material of shell plates Thickness

Description of riveting long. seams Diameter of rivet holes Whether punched or drilled Pitch of rivets

Lap of plating Per centage of strength of joint Rivets Thickness of shell crown plates Radius of do. No. of Stays to do.

Dia. of stays. Diameter of furnace Top Bottom Length of furnace Thickness of furnace 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 uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,
Manufacturer.

Lindsay Burnett & Co

General Remarks (State quality of workmanship, opinions as to class, &c. A steel main boiler of the dimensions given on the other side has been constructed under special survey, the materials and workmanship are of good description and an hydraulic test of 160 lbs per square inch has been applied with satisfactory results. This boiler is intended for the unclamped vessel P.P. Loch Etive. A photo print of the boiler is appended.

As this Boiler is not intended for a Classed Vessel, It is submitted that no further action be taken in the case - unless to make the record NB with date in black, when it has been fitted on board -

W.A.
30-12-93

Ar 15 lbs 2/1/94

It is submitted that the Record NB 1-94 in black be recorded

W.A.
6-2-94

Certificate (if required) to be sent to

The amount of Entry Fee..	£	:	:	When applied for,
Special	£	2	: 2	25/12/93
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	29/12/93

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

Committee's Minute
Assigned Not for Committee