

REPORT ON MACHINERY.

No. 13442

SAT. 16 FEB 1895

Port of Glasgow
 No. in Survey held at Glasgow Date, first Survey 11 Oct 1894 Last Survey 11 Feb 1895
 Reg. Book. 16 on the Screw Steamer "Eilanreach" (Number of Visits 23)
 Master Robert McPhail Built at Ayr By whom built S. McTear & Co. Tons { Gross 205 Net 64
 Engines made at Glasgow By whom made Muir & Houston when made 1895
 Boilers made at do. By whom made do. when made 1895
 Registered Horse Power 47 Owners Master of Blantyre Port belonging to Glasgow
 Nom. Horse Power as per Section 28 ✓

ENGINES, &c.— Description of Engines Compound inverted No. of Cylinders 2
 Diameter of Cylinders 16" & 34" Length of Stroke 24" Revolutions per minute 120 Diameter of Screw shaft as per rule 6.64"
 Diameter of Tunnel shaft as per rule 6.35" Diameter of Crank shaft journals 6 3/4" Diameter of Crank pin 6 3/4" Size of Crank webs 12 1/2" x 10" x 4 1/2"
 Diameter of screw 8'-0" Pitch of screw 10'-0" No. of blades 4 State whether moveable No Total surface 20.5 sq ft
 No. of Feed pumps 1 Diameter of ditto 2 1/4" Stroke 12" Can one be overhauled while the other is at work —
 No. of Bilge pumps 1 Diameter of ditto 2 1/4" Stroke 12" Can one be overhauled while the other is at work —
 No. of Donkey Engines 1 Sizes of Pumps 4 1/2" x 2 3/4" x 4" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room two 2" In Holds, &c. two 2" in tunnel, one 2" in
stokehold, one 2" in tank
 No. of bilge injections 1 sizes 2 3/4" Connected to condenser, or to circulating pump Pumps a separate donkey suction fitted in Engine room & size
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes
 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 and all boiler mountings accessible at all times Yes
 Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges Yes
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock before launching Is the screw shaft tunnel watertight Yes
 Is it fitted with a watertight door Yes worked from deck

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 900 sq ft.
 No. and Description of Boilers One Cylindrical Return tube Working Pressure 130 lbs Tested by hydraulic pressure to 260 lbs
 Date of test 20/12/94 Can each boiler be worked separately ✓ Area of fire grate in each boiler 35 1/2 sq ft No. and Description of safety valves to
 each boiler 2-2 1/2" direct spring Area of each valve 4.9 sq in Pressure to which they are adjusted 130 lbs. Are they fitted
 with easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork 11" Mean diameter of boilers 11'-0"
 Length 9'-6" Material of shell plates Steel Thickness 7/8" Description of riveting: circum. seams Lap d.r. long. seams double 3 riv.
 Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 5 1/2" Lap of plates or width of butt straps 16 1/2"
 Per centages of strength of longitudinal joint 80-77% Working pressure of shell by rules 160 lbs. Size of manhole in shell 16" x 12"
 Size of compensating ring 2" Nuts No. and Description of Furnaces in each boiler 2 Plain Material Steel Outside diameter 40"
 Length of plain part top 6'-0" bottom 8'-0" Thickness of plates top 3/8" bottom 5/8" x 3/4" Description of longitudinal joint weld No. of strengthening rings Half iron
 Working pressure of furnace by the rules 146 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 3/4"
 Pitch of stays to ditto: Sides 6 1/2" x 7 1/2" Back 8" x 7 1/2" Top 6 1/2" x 7" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 137 lbs
 Material of stays Steel Diameter at smallest part 9.64" Area supported by each stay 56 sq in Working pressure by rules 137 lbs End plates in steam space:
 Material Steel Thickness 7/8" Pitch of stays 15" x 14" How are stays secured by nuts & washers Working pressure by rules 161 lbs Material of stays Steel
 Diameter at smallest part 3.49" Area supported by each stay 241 sq in Working pressure by rules 131 lbs Material of Front plates at bottom Steel
 Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 14" Working pressure of plate by rules 195 lbs
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/4" Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 12"
 Pitch across wide water spaces 14" Working pressures by rules 140, 166 lbs Girders to Chamber tops: Material Iron Depth and
 thickness of girder at centre 6 1/2" x 3/4" double Length as per rule 28" Distance apart 4" Number and pitch of Stays in each 3-6 1/2"
 Working pressure by rules 135 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked
 separately — Diameter — Length — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet
 holes — Pitch of rivets — Working pressure of shell by rules — Diameter of flue — Material of flue plates — Thickness —
 If stiffened with rings — Distance between rings — Working pressure by rules — End plates: Thickness — How stayed —
 Working pressure of end plates — Area of safety valves to superheater — Are they fitted with easing gear —

GLS 171-0251

13472 ggs

DONKEY BOILER—

Description

None

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
Plates

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:—

as per rule requirements.

The foregoing is a correct description,

Wm Houston

Manufacturer.

General Remarks

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

The above Engines &

Boilers have been Constructed under Special Survey, are of good Material & workmanship & have been well finished & fitted on board the vessel. The Machinery has been tried under Steam when everything worked well. The Safety Valves have been adjusted to a safe working pressure under steam.

In my opinion the above Machinery is eligible to be classed in the Society's Register Book & to have the record of +LMC 2,95.

1 Boiler tracing & 2 Forging reports hereto attached.

Wm Houston

It is submitted that
this vessel is eligible for
THE RECORD +LMC 2-95

M.A.
16-2-95

Certificate (if required) to be sent to

Glasgow

The amount of Entry Fee..

£

1

:

When applied for,

Special

..

£

8

:

When received,

Donkey Boiler Fee

..

£

4

Travelling Expenses (if any) £

..

4

Committee's Minute

TUES 19 FEB 1895

Assigned

+LMC 2,95

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



© 2019

Lloyd's Register
Foundation