

REPORT ON MACHINERY.

No. 13008

Port of *Glasgow*

MON. 11 JUN 1904

Received at London Office

18

No. in Survey held at *Glasgow*

Date, first Survey *28th July 1902*

Last Survey *31st May 1894*

Reg. Book.

(Number of Visits *14*)

644 on the *P. P. "Progen"*

Tons } Gross *414*
Net *231*

Master *Not appointed* Built at *Port Glasgow* By whom built *Murdoch & Murray*

When built *1883*

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

when made *1883*

Boilers made at *Glasgow* By whom made *Muir & Houston*

when made *1894*

Registered Horse Power *65* Owners *R. B. Ballantyne & Co* Port belonging to *Glasgow*

Nom. Horse Power as per Section 28

ENGINES, &c.— Description of Engines No. of Cylinders *Two*

Diameter of Cylinders *20" x 40* Length of Stroke *27"* Revolutions per minute _____ Diameter of Screw shaft as per rule _____
as fitted _____ Diameter of Crank shaft journals *7 3/4"* Diameter of Crank pin *7 3/4"* Size of Crank webs _____

Diameter of Tunnel shaft as per rule _____ Diameter of Crank shaft journals *7 3/4"* Diameter of Crank pin *7 3/4"* Size of Crank webs _____
as fitted _____

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 *986 sq ft*

No. and Description of Boilers *One cylindrical return tube* Working Pressure *110 lbs* Tested by hydraulic pressure to *49 sq ft*

Date of test *5/2/94* Can each boiler be worked separately Area of fire grate in each boiler *49 sq ft* No. and Description of safety valves to _____
 each boiler *one pair direct spring* Area of each valve *8" x 4"* Pressure to which they are adjusted *100 lbs* Are they fitted _____
 with easing gear *yes* Smallest distance between boilers or uptakes and bunkers or woodwork *6"* Mean diameter of boilers *12'-0"*

Length *9'-6"* Material of shell plates *steel* Thickness *3/4"* Description of riveting: circum. seams *lap single pin long* seams *butt tubular pin*

Diameter of rivet holes in long. seams *1 1/8"* Pitch of rivets *5 3/4"* Lap of plates or width of butt straps *17"*

Per centages of strength of longitudinal joint rievts. 102.0 _____ Working pressure of shell by rules *123 lbs* Size of manhole in shell *18 x 12"*
plate 78.6 _____

Size of compensating ring *11" x 1 1/2"* No. and Description of Furnaces in each boiler *three plain* Material *steel* Outside diameter *37"*

Length of plain part top 6'-0" _____ Thickness of plates 1732 _____ Description of longitudinal joint *tubular butt.* No. of strengthening rings *none*
bottom 8'-0" _____ 1732 5/8 _____

Working pressure of furnace by the rules *124 1/2* Combustion chamber plates: Material *steel* Thickness: Sides *1/2"* Back *1/2"* Top *1/2"* Bottom *5/8"*

Pitch of stays to ditto: Sides *8" x 8"* Back *8 1/4" x 8 1/4"* Top *8" x 7 1/4"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *120 x 115*

Material of stays *steel* Diameter at smallest part *.964* Area supported by each stay *68 sq in* Working pressure by rules *113 lbs* End plates in steam space: _____

Material *steel* Thickness *1/6"* Pitch of stays *14" x 14"* How are stays secured *double nuts & washers* Working pressure by rules *114 lbs* Material of stays *steel*
 Diameter at smallest part *2.71* Area supported by each stay *196 sq in* Working pressure by rules *124 lbs* Material of Front plates at bottom *steel*

Thickness *5/8"* Material of Lower back plate *steel* Thickness *5/8"* Greatest pitch of stays *14"* Working pressure of plate by rules *150 lbs*

Diameter of tubes *3 1/2"* Pitch of tubes *4 3/4" x 4 3/4"* Material of tube plates *steel* thickness: Front *5/8"* Back *5/8"* Mean pitch of stays *9 1/2"*

Pitch across wide water spaces *14" x 12"* Working pressures by rules *197 x 150* Girders to Chamber tops: Material *iron* Depth and _____
 thickness of girder at centre *7" x 1"* Length as per rule *27 1/2"* Distance apart *7 1/2"* Number and pitch of Stays in each *Two 8"*

Working pressure by rules *110 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 _____

If not, state whether, and when, one will be seen. Is a Report also sent on the Hull of the Ship? *Yes*

Lloyd's Register Foundation

GLS170-0070

DONKEY BOILER— Description Upright
 Made at Glasgow By whom made Muir & Houston When made 1894 Where fixed in Stonehole
 Working pressure 70 lbs tested by hydraulic pressure to 140 lbs No. of Certificate 3591 Fire grate area 12 1/2 sq Description of safety valves Single Spring
 No. of safety valves 1 Area of each 4 sq in Pressure to which they are adjusted 70 lbs If fitted with easing gear yes If steam from main boilers can enter the donkey boiler no. Diameter of donkey boiler 4'-7 1/2" Length 9'-6" Material of shell plates Steel Thickness 3/8"
 Description of riveting long. seams Double lap. Diameter of rivet holes 15/16" Whether punched or drilled drilled Pitch of rivets 3 1/4"
 Lap of plating 5" Per centage of strength of joint 96 Rivets 71 Thickness of shell crown plates 1/2" Radius of do. 4'-6" No. of Stays to do. 3
 Dia. of stays. 1 1/2" Diameter of furnace Top 3'-5 1/2" Bottom 4'-3" Length of furnace 3'-9" Thickness of furnace plates 7/16" Description of joint Single lap. Thickness of furnace crown plates 1/2" Stayed by 3 - 1 1/2" Stays Working pressure of shell by rules 95 lbs
 Working pressure of furnace by rules 74 lbs Diameter of uptake 10" Thickness of uptake plates 7/16" Thickness of water tubes 3/8"

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Muir & Houston

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

boilers (the particulars of which are given on the other side) have been constructed under special supervision. The materials & workmanship are of good description. Steam has been raised on these boilers & the safety valves adjusted.

The cylinders pistons, slide valves, pumps & shafting were opened up & examined. A new H.P. piston & packing ring & also new bottom end connecting rod bronze have now been fitted.

*As far as seen the machinery of this vessel is in good order & in my opinion is capable to remain as classed & have notification **NB. 5-94 & LMC 5-94** and also that - a working pressure of 100 lbs per square inch ^{be allowed.} provided the proper shaft & sea cocks were satisfactorily when examined in London in August last. as stated by the owners.*

A tracing of the boiler is hereto appended

*It is submitted that this vessel is eligible for **LMC RECORD + LMC 5,94 & NB 5,94.***

The vessel's name to be deleted from the Record Book for Main Boilers.

*New Main & Donkey Boilers now fitted. Steam pressure in Main Boiler when recorded as 100 lbs **A R R***

Certificate (if required) to be sent to 11-6-94

The amount of Entry Fee..	£	:	:	When applied for,
Special ..	£	4	4	4/6/94
Donkey Boiler Fee ..	£	3	:	When received,
Travelling Expenses (if any) £	:	:	:	4/6/94

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

Committee's Minute **TUES. 12 JUN 1894**

Assigned + LMC 5,94 + NB 5,94
Note non limit

