

REPORT ON MACHINERY.

Received from

Surveyor.

8 - JAN. 19

No. in Survey held at

Glasgow.

Port of Glasgow.

TUES. JAN 15 1901

Received at London Office

18

Date, first Survey 22 February

Last Survey 24 Dec

1900

Reg. Book.

"S. S. SALTOM"

(Number of Visits)

on the

Tons } Gross
Net

Master

Built at

Troon

By whom built

Ailsa B. Co.

When built 1900.

Engines made at

Glasgow

By whom made

Muir & Houston Ltd.

when made 1900

Boilers made at

Glasgow

By whom made

Muir & Houston Ltd.

when made 1900

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28 66.

Is Refrigerating Machinery fitted No

Is Electric Light fitted No.

ENGINES, &c.—Description of Engines *Compound - screw* No. of Cylinders *2* No. of Cranks *2*
 Dia. of Cylinders *16" & 36"* Length of Stroke *24* Revs. per minute *170* Dia. of Screw shaft *2.89* as per rule *2.99* as fitted *2.99* Lgth. of stern bush *2.6"*
 Dia. of Tunnel shaft *none* as per rule *6.96* as fitted *7"* Dia. of Crank shaft journals *7"* Dia. of Crank pin *7"* Size of Crank webs *4 1/2"* Dia. of thrust shaft under collars *7"* Dia. of screw *8.0"* Pitch of screw *10.0"* No. of blades *4* State whether moveable *yes* Total surface *22 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 1/2"* Stroke *12"* Can one be overhauled while the other is at work *✓*
 No. of Donkey Engines *2 Duplex* Sizes of Pumps *6" x 4" x 6"* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room *Two 2" dia.* In Holds, &c. *One 2" dia. in forward hold.*
 No. of bilge injections *1* sizes *3"* Connected to condenser, or to circulating pump *pump* Is a separate donkey suction fitted in Engine room & size *yes. 2"*
 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 *none*
 Are all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *valves & cocks.*
 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 launch.* Is the screw shaft tunnel watertight *none.*
 Is it fitted with a watertight door *✓* worked from *✓*

BOILERS, &c.— (Letter for record *(5)*) Total Heating Surface of Boilers *1160 sq. ft.* Is forced draft fitted *no.*
 No. and Description of Boilers *One single ended* Working Pressure *130 lbs* Tested by hydraulic pressure to *260 lbs*
 Date of test *30/10/00* Can each boiler be worked separately *✓* Area of fire grate in each boiler *36 sq. ft.* No. and Description of safety valves to each boiler *2 Safety Spring* Area of each valve *4.91"* 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 *6.0"* Mean dia. of boilers *12.0"* Length *9.6"* Material of shell plates *steel*
 Thickness *2 1/2"* Range of tensile strength *28 to 32* Are they welded or flanged *no* Descrip. of riveting: cir. seams *double* long. seams *treble*
 Diameter of rivet holes in long. seams *1 1/8"* Pitch of rivets *4 1/2"* Lap of plates or width of butt straps *1.5"*
 Per centages of strength of longitudinal joint: rivets *100* plate *85* Working pressure of shell by rules *135 lbs.* Size of manhole in shell *16" x 12"*
 Size of compensating ring *the heels* No. and Description of Furnaces in each boiler *2 Plain* Material *steel* Outside diameter *3.9"*
 Length of plain part: top *6.0"* bottom *5.9"* Thickness of plates: crown *2 1/2"* bottom *2 1/2"* Description of longitudinal joint *welded* No. of strengthening rings *none*
 Working pressure of furnace by the rules *138 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 *8 1/2" x 8 1/2"* Back *8 1/2" x 8 1/2"* Top *8 1/2" x 8 1/2"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *151 lbs*
 Material of stays *steel* Diameter at smallest part *1.19"* Area supported by each stay *72 1/4"* Working pressure by rules *131 lbs* End plates in steam space:
 Material *steel* Thickness *29/32"* Pitch of stays *17" x 17"* How are stays secured *nuts* Working pressure by rules *134 lbs* Material of stays *steel*
 Diameter at smallest part *4.37"* Area supported by each stay *289"* Working pressure by rules *151 lbs* Material of Front plates at bottom *steel*
 Thickness *2 1/2"* Material of Lower back plate *steel* Thickness *2 1/2"* Greatest pitch of stays *12" x 8 1/2"* Working pressure of plate by rules *137 lbs*
 Diameter of tubes *3 1/2"* Pitch of tubes *4 3/4" x 4 3/4"* Material of tube plates *steel* Thickness: Front *2 1/2"* Back *5/8"* Mean pitch of stays *9 1/2"*
 Pitch across wide water spaces *14"* Working pressures by rules *172 lbs* Girders to Chamber tops: Material *iron* Depth and thickness of girder at centre *7 1/4" x 3 1/4"* Length as per rule *27"* Distance apart *8 1/2"* Number and pitch of Stays in each *2 - 8 1/2"*
 Working pressure by rules *156 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 present? Is a Report also sent on the Hull of the Ship?



DONKEY BOILER— No. *None* 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

Di. of donkey boiler Length Material of shell plates Thickness Range of tensile strength

Descrip. of riveting long seams Rivets Thickness of shell crown plates Radius of do. No. of Stays to do.

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

Di. 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

Works Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— *Two top end & two bottom end connecting rod bolts, two main bearing bolts, one set coupling bolts, one set of feed & bulge pump valves, etc.*

The foregoing is a correct description,

For **Muir & Houston, Limited**

Manufacturer.

James Stewart

Dates of Survey while building
During progress of work in shops— 1900: Feb. 22, Mar. 12, Apr. 5, 12, 18, 30, May 9, 24, Jun. 6, 16, 21, 29, Jul. 9, 26, Aug. 7, 22, 29, Sep. 3, 4, 13, 20, Oct. 2, 3, 8, 22, 26, 29, Nov. 5, Dec. 5, 7, 10, 13, 17, 20
Total No. of visits *34*

Is the approved plan of main boiler forwarded herewith

donkey

General Remarks (State quality of workmanship, opinions as to class, &c.) *The Machinery of this vessel has been constructed under Special Survey, the material & workmanship are of good quality, it has been securely fitted on board & tried under steam.*

In my opinion it is eligible to be classed in the Register Book with the record of **L.M.C. 12.00** noted therein

It is submitted that this vessel is eligible for THE RECORD, **L.M.C. 12.00.**

J.S.
15.1.01.

J.S.
15.1.01

The amount of Entry Fee... £ 9 : 18 :
Special... £ 9 : 18 :
Donkey Boiler Fee... £ : :
Travelling Expenses (if any) £ : :
When applied for...
When received...

Committee's Minute **Glasgow. 14 JAN. 1901**

Assigned

+ L.M.C. 12.00.
(when fees paid)

J.W.D. Dimmock
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping



Lloyd's Register Foundation

MACHINERY CERTIFICATE WRITTEN

Glasgow

Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.