

REPORT ON MACHINERY.

Port of Glasgow

No. in Survey held at Glasgow Date, first Survey 16th June 1893 Last Survey 12th July 1894
 Reg. Book. S. S. Maryagon (Number of Visits 69)
 on the S. S. Maryagon Tons { Gross 4994 Net 2280
 Master L. M. Milner Built at Glasgow By whom built A. Stephen & Sons When built 1894
 Engines made at Glasgow By whom made A. Stephen & Sons when made 1894
 Boilers made at do By whom made do when made 1894
 Registered Horse Power 430 Owners Pen. & Or. St. Now. Coy Port belonging to Glasgow
 Nom. Horse Power as per Section 28 417

Received at London Office JUL 17 1894

ENGINES, &c.— Description of Engines Triple Expansion No. of Cylinders Three
 Diameter of Cylinders 27" 45" & 72" Length of Stroke 48" Revolutions per minute 65 Diameter of Screw shaft as per rule 12.8"
 Diameter of Tunnel shaft as fitted 12.1" Diameter of Crank shaft journals 13 1/4" Diameter of Crank pin 13 1/2" Size of Crank webs built
 Diameter of screw 18'-0" Pitch of screw 18'-10" No. of blades 4 State whether moveable Yes Total surface 80 sq. ft
 No. of Feed pumps 2 Diameter of ditto 4" Stroke 30" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 30" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps Feed 8" x 8" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Three 3 1/2" & one to Brake 3 1/2" In Holds, &c. Six 3 1/2" & 2 3/4"
 Suctions 1 sizes 6" Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room & size 4 1/2 3 1/2"
 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
 Pipes with the sea direct on the skin of the ship Yes Are they Valves or Cocks both
 Pipes 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 Yes
 Pipes 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
 Pipes carried through the bunkers bilge suction How are they protected wood casing
 Pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges Yes
 Stern tube, propeller, screw shaft, and all connections examined in dry dock on stocks Is the screw shaft tunnel watertight Yes
 with a watertight door Yes worked from upper platform

S, &c.— (Letter for record (S)) Total Heating Surface of Boilers 7142
 Description of Boilers Two d. e. Multitubular Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs
26.1.94 Can each boiler be worked separately Yes Area of fire grate in each boiler 100 sq No. and Description of safety valves to
2 Direct Spring Area of each valve 12.55 sq Pressure to which they are adjusted 165 lbs Are they fitted
 gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean diameter of boilers 14'-0"
6" Material of shell plates Steel Thickness 1 1/8" Description of riveting: circum. seams d. riv. lap long. seams d. butt str
 rivet holes in long. seams 1 3/16" Pitch of rivets 8 1/2" & 4 1/4" Lap of plates & width of butt straps 6 1/2" & 18"
 rivets 86.2 Working pressure of shell by rules 163 lbs. Size of manhole in shell End 12" x 16"
 plates of strength of longitudinal joint 86. plate
 of compensating ring flanged in No. and Description of Furnaces in each boiler Six Persoon Material Steel Outside diameter 38"
 Length of plate part top 37'-0 3/16" Thickness of plates bottom 1 5/16" Description of longitudinal joint welded No. of strengthening rings —
 Working pressure of furnace by the rules 160 lbs Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back — Top 9/16" Bottom 13/16"
 Pitch of stays to ditto: Sides 7 1/2" Back — Top 7 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 194 lbs
 Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 56.2 sq Working pressure by rules 173 lbs End plates in steam space:
 Material Steel Thickness 1" Pitch of stays 16 1/2" How are stays secured d. nuts Working pressure by rules 162 lbs Material of stays Steel
 Diameter at smallest part 2 5/8" Area supported by each stay 272.2 sq Working pressure by rules 160 lbs Material of Front plates at bottom Steel
 Thickness 1 3/16" Material of Lower back plate d. welded Thickness 1 3/16" Greatest pitch of stays d. e. Working pressure of plate by rules —
 Diameter of tubes 3 1/2" Pitch of tubes 4 5/8" Material of tube plates Steel Thickness: Front 3/4" Back 1 3/16" Mean pitch of stays 9 1/4"
 Pitch across wide water spaces 14 1/2" Working pressures by rules 160 lbs by d. e. to Chamber tops: Material Steel Depth and
 thickness of girder at centre 9 1/2" x 3 1/4" Length as per rule 36" Distance apart 7 1/2" Number and pitch of Stays in each 3. 7 1/2"
 Working pressure by rules 172 lbs Superheater or Steam chest; how connected to boiler — 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 —



1308686

DONKEY BOILER— Description *Multitubular*
 Made at *Glasgow* By whom made *A. Stephen & Sons* When made *'94* Where fixed *deckhouse*
 Working pressure *80 lbs* Tested by hydraulic pressure to *160 lbs* No. of Certificate *3502* Fire grate area *27 1/2* Description of safety valves *A. Spring*
 No. of safety valves *2* Area of each *6"* Pressure to which they are adjusted *80 lbs* If fitted with casing gear *Yes* If steam from main boilers can enter the donkey boiler *No* Diameter of donkey boiler *9'-6"* Length *8'-6"* Material of shell plates *steel* Thickness *9/16*
 Description of riveting long seams *treb. riv. lap* Diameter of rivet holes *7/8* Whether punched or drilled *drill* Pitch of rivets *3 7/8*
 Lap of plating *6 1/8* Per centage of strength of joint Rivets *75.9* Thickness of shell plates *23/32* Radius of do. — No. of Stays to d
 Dia. of stays *2"* Diameter of furnace Top *28"* Bottom *36"* Length of furnace *6'-0"* Thickness of furnace plates *15/32*
 joint *d. butt str* Thickness of furnace crown plates *13/32* Stayed by *1 1/8* stays *7 1/2* pitch Working pressure of shell by r
 Working pressure of furnace by rules *91 lbs.* Diameter of uptake *3"* Thickness of uptake plates front *7/8* Thickness of water tube plate

SPARE GEAR. State the articles supplied:— *N. P piston rod complete, Top and bottom end bolts, Slide Valve spindle valve faces Air pump bucket rod. Ci pump bucket rod. Ind, bilge & donkey pumps valves & seats. One piece crankshaft and propeller shaft &c —*

The foregoing is a correct description,
Alex. Stephen & Sons Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The above mentioned engines and boilers have been built under spec survey and are of good workmanship & material. The machinery has been well fitted on board vessel and tried under steam with satisfactory results. The vessel name is now in my opinion eligible to the notation: "L. M. C. 7. 94." in Society's Register.*

Attached One boiler print. —
 " two forging reports. —

It is submitted that this vessel is eligible for THE RECORD L M C 7 94

The diameter of the I.P. Cylinder to be recorded as *48"* instead of *48"* as now recorded

A.P.P.
17-7-94

Certificate (if required) to be sent to *Glasgow*
 WRITTEN.
 The amount of Entry Fee. . . £ *3* : " : "
 Special £ *40* : *14* : "
 Donkey Boiler Fee £ " : " : "
 Travelling Expenses (if any) £ " : " : "

When applied for, *9/4/94*
 When received, *13/4/94*

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

Committee's Minute
 Assigned

TUES. 17 JUL 1894

+ L.M.C. 7. 94



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