

## REPORT ON MACHINERY.

12466

Port of Glasgow

Received at London Office

18

No. in Survey held at Glasgow  
Reg. Book.Date, first Survey 25<sup>th</sup> JulyLast Survey 18<sup>th</sup> Sep<sup>r</sup> 1893(Number of Visits 10)733 on the Iron S.S. "Burslem"Gross 405  
TonsNet 225When built 1883-7Master J. Dingle Built at Port Glasgow By whom built Russell & CoEngines made at Glasgow By whom made Afley & McBlellanwhen made 1883-7Boilers made at Glasgow By whom made Lindsay, Burnett & Cowhen made 1893Registered Horse Power 55 HPOwners Exors plate J. A. WalkerPort belonging to London

Nom. Horse Power as per Section 28

35 HP-2-92+ 100 A1.5-92  
+ L.M.C. 5-92

## ENGINES, &amp;c.—

Description of Engines Compound Surface CondensingNo. of Cylinders 2Diameter of Cylinders 18 in and 36 in Length of Stroke 24 in Revolutions per minute 90 Diameter of Screw shaft 6 1/4 as per ruleDiameter of Tunnel shaft 6 1/4 as fitted Diameter of Crank shaft journals 6 Diameter of Crank pin 7 Size of Crank webs 8 x 4 3/4 as fittedDiameter of screw 9 ft Pitch of screw 11 feet No. of blades 4 State whether moveable no Total surface 24.75 ftNo. of Feed pumps one Diameter of ditto 3 1/4 Stroke 16 3/8 Can one be overhauled while the other is at work yesNo. of Bilge pumps one Diameter of ditto 3 1/4 Stroke 16 3/4 Can one be overhauled while the other is at work yesNo. of Donkey Engines one Sizes of Pumps 3 3/4 x 9 stroke No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room 2 2 1/4" dia In Holds, &c. 4No. of bilge injections 1 sizes 3 1/4 Connected yes to circulating pump yes Is a separate donkey suction fitted in Engine room & size 3 1/4"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 yesAre all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks ValvesAre 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 at water lineAre 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 yesWhat pipes are carried through the bunkers none How are they protected yesAre all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges yesWhen were stern tube, propeller, screw shaft, and all connections examined in dry dock Feb 1894 Is the screw shaft tunnel watertight yesIs it fitted with a watertight door yes worked from Deck

## BOILERS, &amp;c.—

(Letter for record)

Total Heating Surface of Boilers 946.5 sq ftNo. and Description of Boilers One Multitubular Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbsDate of test 18/9/93 Can each boiler be worked separately yes Area of fire grate in each boiler 32.5 ft No. and Description of safety valves toeach boiler — Area of each valve — Pressure to which they are adjusted — Are they fittedwith easing gear — Smallest distance between boilers or uptakes and bunkers or woodwork — Mean diameter of boilers 11'-0"Length 9'-0" Material of shell plates Steel Thickness 5/8" Description of riveting: circum. seams lap double riv long. seams lap triple rivDiameter of rivet holes in long. seams 15/16 Pitch of rivets 3 3/4" Lap of plates on width of butt straps 6 1/2"Per centages of strength of longitudinal joint 75% Working pressure of shell by rules 84.2 lbs Size of manhole in shell 16" x 12Size of compensating ring 6' x 5/8" No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 40"Length of plain part 5'-10" Thickness of plates 5/8" Description of longitudinal joint welded No. of strengthening rings 1) 3 x 3 x 1/2"Working pressure of furnace by the rules 90.94 lbs Combustion chamber plates: Material Steel Thickness: Sides 7/16" Back 7/16" Top 7/16" Bottom 7/16"Pitch of stays to ditto: Sides 8" x 8" Back 8 1/2" x 7 1/2" Top 8" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 89 lbsMaterial of stays Steel Area at smallest part 76 x 96" Area supported by each stay 63 x 80" Working pressure by rules 96 x 98 End plates in steam space:Material Steel Thickness 7/16" Pitch of stays 16" How are stays secured D. nuts Working pressure by rules 83 lbs Material of stays SteelArea at smallest part 2.36 Area supported by each stay 2.56 Working pressure by rules 83 lbs Material of Front plates at bottom SteelThickness 5/8" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 12 3/4" Working pressure of plate by rules 83 lbsDiameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 1/16" Back 5/8" Mean pitch of stays 12.4"Pitch across wide water spaces 13 1/2" Working pressures by rules 86.9 lbs Girders to Chamber tops: Material iron Depth andthickness of girder at centre 6" x 1/2" Length as per rule 26" Distance apart 8" Number and pitch of Stays in each two 8"Working pressure by rules 82 lbs Superheater or Steam chest; how connected to boiler yes Can the superheater be shut off and the boiler workedseparately yes Diameter — Length — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivetholes — 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 —

GLS168-0101



12466 *ges.*

**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, (*Sgd.:*) For Lindsay Burnet & Co  
 Manufacturer. *H. Cameron*

**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 by Messrs Lindsay Burnet & Co. Moor Park Boiler Works. The materials and workmanship are of good description and an hydraulic test of 160 lbs per square inch has been applied at which pressure it was found tight and satisfactory.*

*This boiler is intended for the classed vessel S.S. Burslem and is to be shipped to Buenos Ayres.*

*A photoprint of the boiler is appended.*

Certificate (if required) to be sent to \_\_\_\_\_

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

(*Sgd.:*) *A. McKend*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

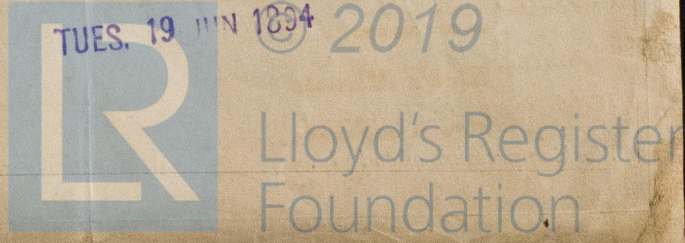
**TUES. 13 MAR 1894**

**FRI 18 MAY 1894**

**TUES. 19 JUN 1894**

Assigned

*Deferred for completion*



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