

REPORT ON MACHINERY.

9082

No. 9082

Port of

Glasgow

No. in Survey held at

Glasgow

Date, first Survey 22nd June 1884

Received at London Office

THURS 28th 1884

Last Survey Mar. 23 1889

Reg. Book.

on the Twin Screw Steamer "City of Paris"

(Number of Plates 89)

10498.64

Tons 5580.90

Master Fred Watkins

Built at Glasgow

By whom built

James & George Thomson

When built 1889

Engines made at

Glasgow

By whom made

" " "

when made 1889

Boilers made at

"

By whom made

" " "

when made 1889

Registered Horse Power

2000

Owners Inman & International S.S. Coy.

Port belonging to Liverpool

ENGINES, &c.

Description of Engines Triple Expansion
 Diameter of Cylinder 45" 71" 113" Length of Stroke 60" No. of Rev. per minute Point of Cut off, High Pressure 1/2 stroke Low Pressure 1/2 stroke
 Diameter of Screw shaft 20 1/2" Diam. of Tunnel shaft 19 1/4" Diam. of Crank shaft journals 20 1/2" Diam. of Crank pin 21" size of Crank webs 16"
 Diameter of screw 19 1/2" Pitch of screw 28" 3" mean No. of blades 3 state whether moveable Yes total surface 96 ft in each
 No. of Feed pumps 1 diameter of ditto 1 Stroke 1 Can one be overhauled while the other is at work All pumps worked
 No. of Bilge pumps 1 diameter of ditto 1 Stroke 1 Can one be overhauled while the other is at work by independent Engine
 Where do they pump from All compartments
 No. of Donkey Engines 1 See other side No. of Pumps 1 Where do they pump from Sea Bilges Hotwell & in East Lanth
 Are the bilge suction pipes fitted with roses Yes Are the roses always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes
 Are the bilge injections One to each engine and sizes 1 1/2" Are they connected to condenser or to circulating pump To circulating pumps
 Are the pumps worked by separate Engines Centrifugal
 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 near to
 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
 Are the pipes carried through the bunkers by separate pipes to the Sea No Are they protected by wood casing Yes
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times Yes
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges Yes
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock March 18th 1889
 Are the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from upper platforms

BOILERS, &c.

Number of Boilers Six Description Round Horizontal Whether Steel or Iron Steel
 Working Pressure 150 lbs Tested by hydraulic pressure to 300 lbs Date of test 5th Oct. 1889 Six Boilers 22nd Oct. 1889 Three Boilers.
 Description of superheating apparatus or steam chest None
 Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately Yes
 No. of square feet of fire grate surface in each boiler 144 ft² Description of safety valves Direct Spring No. to each boiler Three
 Area of each valve 16.9" Are they fitted with easing gear Yes No. of safety valves to superheater 1 area of each valve 16.9"
 Are they fitted with easing gear Yes Smallest distance between boilers and bunkers or woodwork about 3 ft Diameter of boilers 15" 6"
 Length of boilers 19' 1 1/2" description of riveting of shell long. seams double riveted circum. seams triple riveted Thickness of shell plates 1 1/2"
 Diameter of rivet holes 1 1/16" whether punched or drilled Drilled pitch of rivets 8 1/4" & 4 1/2" Lap of plating straps 18 1/2" x 1 1/2"
 Percentage of strength of longitudinal joint 84% working pressure of shell by rules 100 lbs size of manholes in shell 16" x 12"
 Size of compensating rings Forged flanged rings 1 1/2" No. of Furnaces in each boiler Six
 Outside diameter 4' 3" length, top 4' 6" bottom 4' 3" thickness of plates 10/16" description of joint Corrugated if rings are fitted Yes
 Greatest length between rings 10' 6" working pressure of furnace by the rules 100 lbs combustion chamber plating, thickness, sides 1 1/2" back 1 1/2" top 1 1/2"
 Pitch of stays to ditto, sides 3/4" x 1/2" back 3/4" x 1/2" stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 162 lbs
 Diameter of stays at smallest part 1 1/2" = 1.48" working pressure of ditto by rules 200 lbs and plates in steam space, thickness 15/16"
 Pitch of stays to ditto 18" x 16 3/4" how stays are secured by double nuts & large riveted washers 12" x 1 1/2" diameter of stays at smallest part 2 1/2" = 5.8" working pressure by rules 174 lbs Front plates at bottom, thickness 1 1/16" Back plates, thickness 1 1/16"
 Greatest pitch of stays working pressure by rules 174 lbs Diameter of tubes 2 3/8" pitch of tubes 5 1/2" x 3 1/2" thickness of tube plates, front 13/16" back 2 1/32" how stayed by tubes pitch of stays 3 1/2" x 10 1/2" width of water spaces 6"
 Diameter of Superheater or Steam chest length thickness of plates description of longitudinal joint diam. of rivet holes
 Pitch of rivets working pressure of shell by rules diameter of flue thickness of plates If stiffened with ribs
 Distance between rings working pressure by rules end plates of superheater, or steam chest; thickness how stayed
 Superheater or steam chest; how connected to boiler

DONKEY BOILER— Description *Round Multitubular*
 Made at *Glasgow* by whom made *James & George Thomson* when made *1889* where fixed *On main Deck*
 Working pressure *150 lbs* tested by hydraulic pressure to *300* No. of Certificate *2085* fire grate area *28 ft²* description of safety
 valves *Direct Spring* No. of safety valves *Two* area of each *4"* if fitted with easing gear *Yes* if steam from main boilers can
 enter the donkey boiler *No* diameter of donkey boiler *8' 8"* length *9' 6"* description of riveting *Double riveted*
 Thickness of shell plates *1 1/16"* diameter of rivet holes *1"* whether punched or drilled *Drilled* pitch of rivets *5 1/2"* lap of plating *1 1/2"*
 per centage of strength of joint *80%* thickness of *Comb Chamber* plates *3/16"* stayed by *Stays 1 1/2" dia 4" x 4 1/2" pitch*
 Diameter of furnace, *3' 2"* bottom *—* length of furnace *6' 6"* thickness of plates *1/16"* description of joint *Corrugated*
 Thickness of furnace *End* plates *1 1/16"* stayed by *Bar Stays 2 3/8" dia 14" x 15" pitch* working pressure of shell by rules *162*
 Working pressure of furnace by rules *150 lbs* diameter of uptake *—* thickness of plates *—* thickness of water tubes *—*

SPARE GEAR. State the articles supplied: *One length of Crank Shaft, Piston rod complete*
Propeller Shaft with set of blades, 16 pairs connecting rod brasses & balance
2 Air pump rods & 2 buckets with valves complete, 4 bolts & nuts for main bearings, 4 top end
4 2 bottom end connecting rod bolts, 9 Coupling bolts Crank Shaft & 6 screw shaft
 The foregoing is a correct description, and a very large assortment of other parts
both for Main Engines and all the Auxiliaries
James & George Thomson Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.)
Four main Lead pumping Engines 12" x 6" x 6"
Two vertical Bilge pumps 9" x 6" x 6"
Two Horizontal " 6" x 8 1/2" x 6"
One Auxiliary Lead pump in each boiler Compartment 2 1/2" x 6" x 9"

Gwynnes { *4 Centrifugal pumps*
12 vacuum tank engines { *Lossed draught Closed Stoves*
2 Auxiliary " " " principle
Browns { *2 Hydraulic Engines*

The Machinery & Boilers of this vessel are of good workmanship and materials and have been thoroughly tried under steam up to 94 revolutions per minute and now in good order and safe working condition and eligible in my opinion to be noted in the Register Book *Lloyd's*
M.C. 3/89

It is submitted that this vessel is eligible to have + L.M.C. 3 89. recorded
Wd. 28.3.89

The amount of Entry Fee .. £ *3* : - : - received by me,
 Special .. £ *120* : - : -
 Donkey Boiler Fee .. £ : - : -
 Certificate (if required) .. £ : - : - *30/3/89*
 (To be sent as per margin.)
 (Travelling Expenses, if any, £ *1-18/-*)

James Thomson
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
Clyde District

Committee's Minute *FRIDAY 23 MARCH 1889*
+ L.M.C. 3 89