

REPORT ON MACHINERY.

16152

Port of Glasgow

Tndt. 6 AUG 1891
Received at London Office

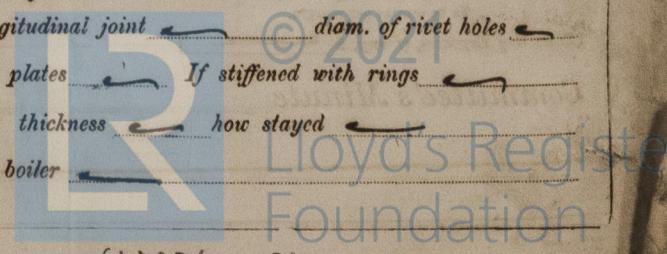
No. 16152
No. in Survey held at Glasgow
Reg. Book. _____
on the S/S "Virginia Pirano"
Master Hope Built at Frunderland By whom built Blumer & Lay When built 1891
Engines made at Glasgow By whom made Alley & MacLellan when made 1891
Boilers made at Glasgow By whom made Alley & MacLellan when made 1891
Registered Horse Power 1000 Owners The Great Western Steamship Co. Ltd. Port belonging to London
BY Rules - 194

ENGINES, &c.

Description of Engines Triple Expansion No. of Cylinders Three
Diam. of Cylinders 21", 33" & 54" Length of Stroke 42" Rev. per minute 70 Point of Cut off, High Pressure Var Low Pressure _____
Diameter of Screw shaft 10 3/4" Diam. of Tunnel shaft 10 1/4" Diam. of Crank shaft journals 10 3/4" Diam. of Crank pin 11" size of Crank webs built
Diameter of screw 14'-0" Pitch of screw 14'-6" No. of blades 4 state whether moveable sol. total surface 61 ft²
No. of Feed pumps two diameter of ditto 3 1/2" Stroke 19" Can one be overhauled while the other is at work yes
No. of Bilge pumps two diameter of ditto 3 1/2" Stroke 19" Can one be overhauled while the other is at work yes
Where do they pump from Bilge hold + a w. r. d.
No. of Donkey Engines 2 Size of Pumps (6" x 3 1/2" x 8") (8" x 8") Where do they pump from Sea, hold, & all compartments
Are all the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible yes
No. of bilge injections five and sizes 5 Are they connected to condenser, or to circulating pump yes
How are the pumps worked by levers
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 above & below
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 _____ How are they protected _____
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 while building
Is the screw shaft tunnel watertight _____ and fitted with a sluice door yes worked from top platform

BOILERS, &c.

No. of Boilers Two Description Multitubular Material Steel Letter (for record) S.
Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 27th January 1891
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 _____
No. of square feet of fire grate surface in each boiler 53 ft² Description of safety valves d. Spring No. to each boiler two
Area of each valve 7.07 Heating Sur. 3006 Are they fitted with easing gear yes No. of safety valves to superheater _____ area of each valve _____
Are they fitted with easing gear _____ Smallest distance between boilers and bunkers or woodwork 12" Diameter of boilers 13'-0"
Length of boilers 10'-6" description of riveting of shell long. seams d. butt str. circum. seams d. riv lap Thickness of shell plates 1 5/32
Diameter of rivet holes 1 1/2" & 1 5/16" whether punched or drilled drilled pitch of rivets 4 1/2" & 3 3/4" Lap of plating 9 7/8" & 6 1/4"
Per centage of strength of longitudinal joint 83 3/4% working pressure of shell by rules 160 lbs size of manholes in shell 12" x 16"
Size of compensating rings McNells No. of Furnaces in each boiler three Description of Furnaces Purvis
Outside diameter 38" length 7'-4" thickness of plates 7/32 description of joint welded if rings are fitted _____
Greatest length between rings _____ working pressure of furnace by the rules 198 lbs combustion chamber plating, thickness, sides 9/16 back 9/16 top 9/16
Pitch of stays to ditto, sides 7 3/4" back 7 3/4" top 7 3/4" If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 162 lbs Diameter of stays at smallest part 1.2" working pressure of ditto by rules 160 lbs bend plates in steam space, thickness 1 3/16" & 1 1/16" dbl pt.
Pitch of stays to ditto 15" how stays are secured d. nuts working pressure by rules 160 lbs diameter of stays at smallest part 2.41 working pressure by rules 160 lbs Front plates at bottom, thickness 13/16 Back plates, thickness 3/4" & 7/8"
Greatest pitch of stays _____ working pressure by rules _____ Diameter of tubes 3 1/2" pitch of tubes 4 3/4" thickness of tube plates, front 13/16 back 13/16 how stayed stubs pitch of stays 9 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 rings _____
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 *Circular vertical Cross tubes.*
 Made at *Birkenhead* by whom made *Carran & Co* when made *12/87* where fixed *Starhole*
 Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *863* fire grate area *26 sq* description of safety
 valves *2* No. of safety valves *2* area of each *8.5* if fitted with easing gear *yes* if steam from main boilers can
 enter the donkey boiler *no* diameter of donkey boiler *7-0* length *14-0* description of riveting *long d.r. Riv. S. r.*
 Thickness of shell plates *15/32* diameter of rivet holes *17/16* whether punched or drilled *d* pitch of rivets *2 1/4* lap of plating *4*
 per centage of strength of joint *68.8* thickness of crown plates *9/32* stayed by *8 bar stays*
 Diameter of furnace, top *4-9* bottom *6-0* length of furnace *6-6* thickness of plates *19/32* description of joint *S. r. Lap*
 Thickness of furnace crown plates *17/32* stayed by *same as crown shell* working pressure of shell by rules *81 lbs*
 Working pressure of furnace by rules *80 lbs* diameter of uptake *18 1/2* thickness of plates *1/2* thickness of water tubes *7/16*

SPARE GEAR. State the articles supplied:— *1 set of connecting rod top & bottom end
 bolts & nuts. 1 set of main bearing bolts & nuts. 1 set of coupling
 bolts & nuts. 1 set of feed & bilge pump valves & nuts. bolts & assorted
 iron*

The foregoing is a correct description,
Allyp MacLellan Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The above mentioned
 engines and main boilers have been built under
 special survey and are of good workmanship
 and materials. They have now been forwarded
 to Leith where it is intended to have them fitted
 outboard the vessel.*

This Report forwarded to Leith Surveyor for completion
Wm Anderson
Glasgow 6.4.91

*The main engine & boiler have been fitted on board at this port (Leith). The
 vessel has now left for Sunderland & for completion. & the Sunderland survey
 have been advised by letter.*
W. Darling Leith. 27th April. 1891.

*3 safety valves of main & donkey boilers adjusted to the
 working pressure. Spare gear examined & found in accord
 with the Rules. Several additional bed plate bolts & cross bolts
 with bolts fitted to further secure bed plate to engine seat.*
*The machinery & boilers were tried under steam & are
 in my opinion in good & safe working condition eligible
 for the notation in the Register Book of L.M.C. 4/91.*

*It is submitted that this vessel
 is eligible to have L.M.C. 7-
 recorded*
W.D.
6.8.91

The amount of Entry Fee .. £	2 : 0 : 0	Applied for by Glasgow
Special £	29 : 2 : 0	received by me, Surveyor.
Donkey Boiler Fee .. . £	- : - : -	
Certificate (if required) .. £	- : - : -	
<small>To be sent as per margin.</small>		
<small>(Travelling Expenses, if any, £)</small>		

12/818 91 *14.8.91*
 FRI, 7 AUG 1891

J. J. Strindley
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute
+ L.M.C. 7/91

