

REPORT ON MACHINERY.

Port of *Glasgow.*

No. *15163*
9335
 No. in Survey held at *Glasgow*
 Reg. Book.

Date, first Survey *30th Oct 1888*

Received at London Office *MON 19th AUGUST 1889*

Last Survey *Aug 7th 1889*

(Number of Visits *30*)

1589.33

Tons *1029.42*

When built *1889*

Master *William Holman* Built at *Sunderland* By whom built *J Blumer & Co.*

Engines made at *Glasgow* By whom made *Alley & MacLellan* when made *1889*.

Boilers made at *Glasgow* By whom made *Alley & MacLellan* when made *1889*.

Registered Horse Power *120* Owners *Parkney Sons & Co.* Port belonging to *London*

ENGINES, &c.—

Description of Engines *Triple Expansion (three cranks)*
 Diameter of Cylinders *18" 30" & 48"* Length of Stroke *36"* No. of Rev. per minute _____ Point of Cut off, High Pressure *Var* Low Pressure *Var*
 Diameter of Screw shaft *9³/₈"* Diam. of Tunnel shaft *9"* Diam. of Crank shaft journals *9¹/₄"* Diam. of Crank pin *9¹/₄"* size of Crank webs *47 8" x 6 3*/₈
 Diameter of screw *12'-0"* Pitch of screw *14'-0"* No. of blades *4* state whether moveable *Yes* total surface *50 ft²*
 No. of Feed pumps *2* diameter of ditto *2 1*/₂" Stroke *18"* Can one be overhauled while the other is at work *Yes*
 No. of Bilge pumps *2* diameter of ditto *4"* Stroke *18"* Can one be overhauled while the other is at work *Yes*
 Where do they pump from *All compartments after well.*
 No. of Donkey Engines *Two* Size of Pumps *8" x 8" 5" x 6"* Where do they pump from *Sea bottom bilges*

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 *One* and sizes *4"* Are they connected to condenser, or to circulating pump *Yes*
 How are the pumps worked *by levers off int engine crosshead.*
 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*
 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
 That pipes are carried through the hulkers *none* 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 *when building*
 Is the screw shaft tunnel watertight *Yes* and fitted with a sluice door *Yes* worked from *top platform*

BOILERS, &c.—

Number of Boilers *Two* Description *Multitubular* Whether Steel or Iron *Steel*
 Working Pressure *160 lbs.* Tested by hydraulic pressure to *320 lbs.* Date of test *28th May 1889.*
 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 *38.5* Description of safety valves *direct spring* No. to each boiler *Two*
 Area of each valve *5.93* 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 *10"* Diameter of boilers *11'-9"*
 Length of boilers *9'-9"* description of riveting of shell long. seams *d. butt str.* circum. seams *d. riv. lap* Thickness of shell plates *1 1*/₁₆
 Diameter of rivet holes *1 3*/₁₆ whether punched or drilled *drilled* pitch of rivets *7" & 2 5*/₁₆ Lap of plating *butt straps*
 Percentage of strength of longitudinal joint *83%* working pressure of shell by rules *160 lbs* size of manholes in shell *12" x 16"*
 Size of compensating rings *McNeil's patent ring doors* No. of Furnaces in each boiler *2*
 Outside diameter *43"* length, top *6'-7"* bottom _____ thickness of plates *9*/₁₆ description of joint *Purves patent* if rings are fitted _____
 Greatest length between rings _____ working pressure of furnace by the rules *162 lbs* combustion chamber plating, thickness, sides *9*/₁₆ back *9*/₁₆ top *9*/₁₆
 Pitch of stays to ditto, sides *7 1*/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 *1.24"* working pressure of ditto by rules *160 lbs* end plates in steam space, thickness *3*/₄" & *7*/₈" dbl. pl.
 Pitch of stays to ditto *14 1*/₂" how stays are secured *d. nuts* working pressure by rules *160 lbs* diameter of stays at
 smallest part *2.28"* working pressure by rules *160 lbs.* Front plates at bottom, thickness *1 3*/₁₆ Back plates, thickness *1 1*/₂" & *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 *1 3*/₁₆ back *1 3*/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 _____

Description of furnaces

DONKEY BOILER— Description *Ordinary vertical 4 cross tubes*
 Made at *Stockton* by whom made *E. Duiron* when made *20/6/89* where fixed *Stokehold*
 Working pressure *80* tested by hydraulic pressure to *160* No. of Certificate *1852* fire grate area *27.5* *sq. ft.* description of safety
 valves *Spring* No. of safety valves *2* area of each *7.06* *sq. ft.* if fitted with easing gear *Yes* if steam from main boilers can
 enter the donkey boiler diameter of donkey boiler *7'-0"* length *12'-0"* description of riveting *Longitudinal lap*
 Thickness of shell plates *15/32* diameter of rivet holes *3/16* whether punched or drilled *punched* pitch of rivets *2 3/4* lap of plating *4*
 per centage of strength of joint *70* thickness of crown plates *9/32* stayed by *7 stays 1 1/2" dia.*
 Diameter of furnace, top *5'-6"* bottom *6'-3"* length of furnace *6'-0"* thickness of plates *2 1/32* description of joint *Lap single*
 Thickness of furnace crown plates *9/8* stayed by *as above* working pressure of shell by rules *84*
 Working pressure of furnace by rules *82* diameter of uptake *15"* thickness of plates *7/16* thickness of water tubes *3/8*

SPARE GEAR. State the articles supplied:— *1 Set of coupling bolts, 1 Set of connecting rod tops*
and bottom end bolts, 1 Set of main bearing bolts, 1 Set of feed and relief
pump valves, bolts and nuts assorted, iron of various sizes.

The foregoing is a correct description,

Manufacturer.

per. per. Allyn & MacLellan
J. M. Smith

General Remarks (State quality of workmanship, opinions as to class, &c.) *The above mentioned*

engines & boilers have been built under special
survey and are of good workmanship & material,

This machinery has been forwarded to Leith, and
I am of opinion, that, when a favourable report
has been made as to the fitting of same on-
*board the vessel the notation: **T. L. M. & C.** with*
date of completion might be made in the
Society's Register Book.

This Report forwarded to Leith Surveyor 27/6/89.

J. M. Sanderson.

These engines & boilers have been fitted on board at Leith and are completed
at Sunderland to which port the vessel has now sailed.

W. F. Darling
Leith 23/7/89

The whole of the work has now been completed in a
satisfactory manner. The engines and boiler tried under steam
J. T. Fiddell.

It is submitted that this
vessel is eligible to have
+ LMC 8.89 recorded

HL

19.8.89

The amount of Entry Fee .. £ 2 : 0 : 0 received by me,

Special .. £ 18 : 0 : 0

Donkey Boiler Fee .. £ - : - : -

Certificate (if required) .. £ - : - : - 22/8/1889

To be sent as per margin.

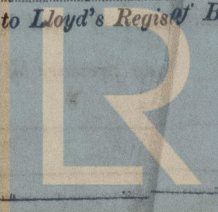
(Travelling Expenses, if any, £ - : - : -)

Committee's Minute

TUES 20 AUGUST 1889

+ LMC 8.89

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



Lloyd's Register
Foundation