

REPORT ON MACHINERY.

15163

No. 15163
 No. 9335
 No. in Survey held at Glasgow Date, first Survey 30th Oct^r 1888 Last Survey Aug 4th 1889
 Reg. Book. Glasgow Received at London Office MON 19 AUGUST 1889
 on the S. S. Trafalgar (Number of Visits 50) Tons 1589.33
 Master William Holman Built at Sunderland By whom built J. Blumer & Co. When built 1889
 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 5/8 Low Pressure 5/8
 Diameter of Screw shaft 9 3/8" Diam. of Tunnel shaft 9" Diam. of Crank shaft journals 9 1/4" Diam. of Crank pin 9 1/4" size of Crank webs 4 7/8 x 6 3/8"
 Diameter of screw 12'-0" Pitch of screw 14'-0" No. of blades 4 state whether moveable pl. 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 hotwell 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 bunkers 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 casing gear yes No. of safety valves to superheater _____ area of each valve _____
 Are they fitted with casing 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" x 2 1/16" 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 Parves 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 3/16" x 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 7/16" x 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 Parves

DONKEY BOILER— Description *Ordinary vertical 4 circ tubes*
 Made at *Stockton* by whom made *E. Deacon* when made *20/6/89* where fixed *Stoke hold*
 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 *7.0* 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 *14-0"* 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 *5/8* 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 top
 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.

*J. P. Allyn & MacLellan
 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. H. 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. J. Darling
 Leith 25/7/89*

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

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

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