

REPORT ON MACHINERY.

8348

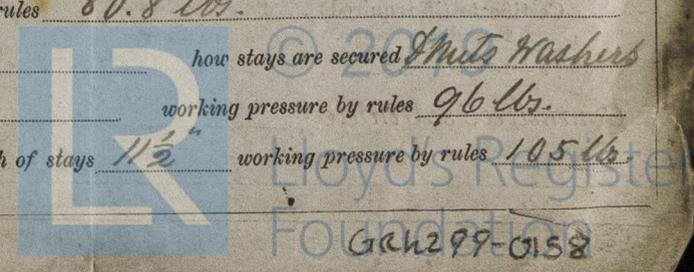
No. 8348 (Received at London Office 13th FEB. 1883)
 No. in Survey held at Glasgow Date, first Survey 11.10.82 Last Survey 7th Feb. 1883
 Reg. Book. on the Screw Steamer Sylvan (Number of Visits 196.46) Tons 112.55
 Master Malcolm Brown Built at Port Glasgow When built 1882
 Engines made at Glasgow By whom made J. Stewart & Co when made 1883
 Boilers made at " By whom made " when made 1883
 Registered Horse Power 35 1/2 HP Owners Miss Wilson Hart 16 Port belonging to Marzborough
Queenstown

ENGINES, &c.—

Description of Engines Compound Inverted Direct Acting
 Diameter of Cylinders 15" x 28" Length of Stroke 30" No. of Rev. per minute 100 Point of Cut off, High Pressure 15 1/2" Low Pressure 15 1/2"
 Diameter of Screw shaft 5" Diameter of Tunnel shaft 5" Diameter of Crank shaft journals 5 3/4" Diameter of Crank pin 5 3/4" size of Crank webs 4" x 6 1/2"
 Diameter of screw 7' 7 1/2" Pitch of screw 10' 6" No. of blades 3 state whether moveable no total surface 16' 0"
 No. of Feed pumps 1 diameter of ditto 2 3/8" Stroke 13" Can one be overhauled while the other is at work —
 No. of Bilge pumps 1 diameter of ditto 2 3/8" Stroke 13" Can one be overhauled while the other is at work —
 Where do they pump from Engine Room Holds
 No. of Donkey Engines one Size of Pumps 2 3/4" x 6" St. Where do they pump from Engine Room Bilge
Holds, Sea, and Watertight
 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 1 and sizes 2 1/2" Are they connected to condenser, or to circulating pump Cir. Pump.
 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
 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 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 before launching
 Is the screw shaft tunnel watertight no tunnel and fitted with a sluice door — worked from —

BOILERS, &c.—

Number of Boilers One Description Cylindrical Single Ended Steel Boiler
 Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs. Date of test 16.1.83
 Description of superheating apparatus or steam chest Steam Chest.
 Can each boiler be worked separately — Can the superheater be shut off and the boiler worked separately —
 No. of square feet of fire grate surface in each boiler 30.27 Description of safety valves direct Spring
 No. to each boiler 2 area of each valve 7" 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" from Coal Bunker
 Diameter of boilers 9' 1" Length of boilers 8' 6 1/2" description of riveting of shell long. seams treble lap. circum. seams Double Lap
 Thickness of shell plates 9 1/16" diameter of rivet holes 7/8" whether punched or drilled drilled pitch of rivets 3 3/4"
 Lap of plating 19" per centage of strength of longitudinal joint 76. working pressure of shell by rules 84.2 lbs.
 Size of manholes in shell 16" x 11 1/2" size of compensating rings 3" x 3 1/4"
 No. of Furnaces in each boiler 2 outside diameter 29 1/16" length, top 6' 2" bottom 8' 0"
 Thickness of plates 13/32" description of joint Double butte if rings are fitted L from greatest length between rings 6' 2"
 Working pressure of furnace by the rules 82.6 lbs.
 Combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"
 Pitch of stays to ditto, sides 8 1/4" x 8 1/4" back 8 1/4" x 8" top Girder
 If stays are fitted with nuts or riveted heads Nuts inside working pressure of plating by rules 80 lbs.
 Diameter of stays at smallest part 1 1/16" working pressure of ditto by rules 80.8 lbs.
 End plates in steam space, thickness 7/16" pitch of stays to ditto 14" how stays are secured Nuts Washers
 Working pressure by rules 86.4 lbs. diameter of stays at smallest part 2" working pressure by rules 96 lbs.
 Front plates at bottom, thickness 5/8" Back plates, thickness 5/8" greatest pitch of stays 11 1/2" working pressure by rules 105 lbs.



Diameter of tubes $3\frac{1}{2}$ " pitch of tubes $4\frac{1}{2}$ " thickness of tube plates, front $\frac{5}{8}$ " back $\frac{5}{8}$ "
 How stayed *S. tubes* pitch of stays $15" \times 9"$ width of water spaces $6"$
 Diameter of Superheater or Steam chest $27\frac{1}{2}$ " length $6'-0"$
 Thickness of plates $\frac{3}{8}$ " description of longitudinal joint *double Lap.* diameter of rivet holes $\frac{3}{4}$ " pitch of rivets $3\frac{1}{4}$ "
 Working pressure of shell by rules 194 lbs. 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 $\frac{1}{2}$ " How stayed *One $1\frac{3}{8}$ " stay double nuts & washers.*
 Superheater or steam chest; how connected to boiler *Welded throat.*

DONKEY BOILER— Description *No donkey boiler*
 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 _____
 If fitted with casing gear _____ If steam from main boilers can enter the donkey boiler _____
 Diameter of donkey boiler _____ length _____ description of riveting _____
 thickness of shell plates _____ diameter of rivet holes _____ whether punched or drilled _____
 pitch of rivets _____ lap of plating _____ per centage of strength of joint _____
 thickness of crown plates _____ stayed by _____
 Diameter of furnace, top _____ bottom _____ length of furnace _____
 thickness of 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 plates _____ thickness of water tubes _____

The foregoing is a correct description,
 Manufacturer. *James Lamberton & Co
 London Road
 Glasgow*

General Remarks (State quality of workmanship, opinions as to class, &c. *The above Engines and Boiler are now completed. The machinery is in a safe and good working condition and in my opinion eligible to be noted in Register Book*
+ L.M.C. 2.83.

It is submitted that this vessel is eligible to have the notification & L.M.C. recorded M 13/2/83

The amount of Entry Fee .. £ $1:0:0$ received by me,
 Special £ $8:0:0$ *larger*
 Certificate (if required) .. £ *gratis 10/2/83*
 To be sent as per margin.
 (Travelling Expenses, if any, £ _____)

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

Committee's Minute *Tuesday, 13th February, 1883.*

