

REPORT ON MACHINERY.

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)
 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 Messrs Wilson & Hart Port belonging to Marzborough
Queensland

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 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 $2\frac{1}{2}$ " 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 Thompson & Co
London Road Iron Works
Bluesgown

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 1/11/1883

The amount of Entry Fee .. £ $1:0:0$ received by me,

Special £ $8:0:0$ *Elasgow*

Certificate (if required) .. £ *Gratis 10/2/1883*

To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute

Tuesday, 13th February, 1883.

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