

REPORT ON MACHINERY.

8066

No. 8066

(Received in London Office 15/11/81)

No. in Reg. Book. Survey held at Campbellton & Ayr Date, first Survey _____ Last Survey 1881
 on the Iron Screw Steamer "John Burbery" Tons 282
 Master J. J. Parvall Built at Campbelltown When built 1881
 Engines made at Ayr By whom made J. & J. Young when made 1881
 Boilers made at Ayr By whom made J. & J. Young when made 1881
 Registered Horse Power 55 Owners Messrs. Dawson & Warley Port belonging to Cardiff

ENGINES, &c.—

Description of Engines Compound, Inverted, Direct-Acting, Surface-Condensing
 Diameter of Cylinders 19" 3/16" Length of Stroke 27" No. of Rev. per minute 90 app. Point of Cut off, High Pressure 5/8 app. Low Pressure 3/4 app.
 Diameter of Screw shaft 7" Diameter of Tunnel shaft 6 1/4" Diameter of Crank shaft journals 7" Diameter of Crank pin 7" size of Crank webs 9" X 1 1/2"
 Diameter of screw 9-9 Pitch of screw 14-0" No. of blades 4 state whether moveable no total surface 30 sq. feet.
 No. of Feed pumps One diameter of ditto 2" Stroke 27" Can one be overhauled while the other is at work no
 No. of Bilge pumps One diameter of ditto 2" Stroke 27" Can one be overhauled while the other is at work no
 Where do they pump from Engine bilges and main hold.
 No. of Donkey Engines One Size of Pumps 4 diam 6" stroke Where do they pump from Sea, ballast tank, & 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 3 1/2" Are they connected to condenser, or to circulating pump Circulating pumps.
 How are the pumps worked Direct by crosshead beam from L.P. crosshead.
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Valves and cocks.
 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 New vessel, before being launched.
 Is the screw shaft tunnel watertight No tunnel and fitted with a sluice door worked from _____

BOILERS, &c.—

Number of Boilers One Description Round, horizontal, multitubular.
 Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test 22nd August, 1881.
 Description of ~~superheating apparatus~~ or steam chest Longitudinal receiver
 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 33 sq. ft. Description of safety valves Direct spring (Young)
 No. to ~~each~~ boiler Two area of each valve 9.6 sq. inch 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 About 13"
 Diameter of boilers 10' 9" Length of boilers 9' 0" description of riveting of shell long. seams Double straps circum. seams Single lap.
 Thickness of shell plates 13/16" diameter of rivet holes 17/16" whether punched or drilled punched pitch of rivets 3 5/8"
 Lap of plating Straps 9" per centage of strength of longitudinal joint 74 working pressure of shell by rules 89 lbs
 Size of manholes in shell 16" x 12" size of compensating rings Angle ring 3' x 3 3/4' x 9 1/16"
 No. of Furnaces in each boiler Two outside diameter 39" length, top 6' 0" bottom 8' 0" app.
 Thickness of plates 1/2" description of joint Straps if rings are fitted part angle ring under each greatest length between rings _____
 Working pressure of furnace by the rules 100 lbs
 Combustion chamber plating, thickness, sides 1/2" back 1/2" top 1/2"
 Pitch of stays to ditto _____ sides 9' x 8" back 9' x 8" top Girders 9 1/4' x 8"
 If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 94 lbs
 Diameter of stays at smallest part 1 1/4" working pressure of ditto by rules 101 lbs
 End plates in steam space, thickness 5/8" pitch of stays to ditto 12" x 12" how stays are secured By double nuts
 Working pressure by rules 98 lbs diameter of stays at smallest part 1 3/4" working pressure by rules 100 lbs
 Front plates at bottom, thickness 5/8" Back plates, thickness 7/8" greatest pitch of stays 9' x 8" working pressure by rules 94 lbs.

Diameter of tubes $3\frac{1}{2}$ " pitch of tubes $4\frac{3}{4} \times 4\frac{3}{4}$ " thickness of tube plates, front $5\frac{1}{8}$ " back $5\frac{1}{8}$ "
 How stayed *By tubes* pitch of stays $14\frac{1}{4} \times 14\frac{1}{4}$ " width of water spaces 5" at back, 12" between tubes.
 Diameter of ~~superheater~~ Steam chest 2'6" length 4'0"
 Thickness of plates $1\frac{1}{2}$ " description of longitudinal joint *Double lap* diameter of rivet holes $1\frac{3}{16}$ " pitch of rivets 3"
 Working pressure of shell by rules 149 lbs Diameter of flue _____ thickness of plates _____
 If stiffened with rings _____ distance between rings _____ Working pressure by rules _____
 End plates of ~~superheater~~ steam chest; thickness $1\frac{1}{2}$ " How stayed *Dished and riveted to shell*
~~Superheater~~ steam chest; how connected to boiler *By strong rod 15" dia flanged and riveted.*

DONKEY BOILER— Description *Placed, vertical, cross tubes.*
 Made at *Ays* By whom made *J. G. Young* when made 1881
 Where fixed *at stakehold* working pressure *60 lbs* Tested by hydraulic pressure to 120 lbs No. of Certificate 72
 Fire grate area *9.6 sq ft.* Description of safety valves *Direct spring* No. of safety valves *One* area of each *7 sq ins*
 If fitted with easing gear *Yes* If steam from main boilers can enter the donkey boiler *By opening valves.*
 Diameter of donkey boiler $4'0"$ length $8'0"$ description of riveting *Double lap*
 thickness of shell plates $3\frac{3}{8}$ " diameter of rivet holes $1\frac{3}{16}$ " whether punched or drilled *Punched*
 pitch of rivets $2\frac{7}{8}$ " lap of plating $4"$ per centage of strength of joint 72
 thickness of crown plates $4\frac{1}{16}$ " stayed by *Dished & by uptake.*
 Diameter of furnace, top $3'6"$ bottom $3'4"$ length of furnace $4'0"$
 thickness of plates $3\frac{3}{8}$ " description of joint *Lap joint.*
 thickness of furnace crown plates $4\frac{1}{16}$ " stayed by *Dished and by uptake.*
 Working pressure of shell by rules 84 lbs working pressure of furnace by rules 43 lbs as a flue
 diameter of uptake $11"$ thickness of plates $3\frac{3}{8}$ " thickness of water tubes $3\frac{3}{8}$ "

The foregoing is a correct description,

J. G. Young Manufacturer's *J. G. Young*

General Remarks (State quality of workmanship, opinions as to class, &c. *Workmanship and materials good.*)

The Engines and Boilers have been inspected by me during construction, they are in good and efficient condition, eligible to be classed "LLOYDS M.C." and to be noted "9.81."

This submitted that this vessel is eligible to have the qualification LLOYDS M.C. recorded J.M. 15/11/88

The amount of Entry Fee £ 2 : : , received by me,
 Special *M.C.* £ 8 : 5 : "
 Certificate (if required) .. £ " : " : " 16th Sept 1888
 (Travelling Expenses, if any, £ 6/6/.)

Alfred H. Alchin
 Engineer/Surveyor to Lloyd's Register of British & Foreign Shipping
Greenock

Committee's Minute Friday, December, 1888
Alfred H. Alchin