

REPORT ON MACHINERY.

No. 8784 Received at London Office THURSDAY 20 NOV 1884
 No. in Survey held at Glasgow & Ayr Date, first Survey March 15th Last Survey Sept 2^d 1884
 Reg. Book. on the Screw Steamer "Coila" (Number of Visits 365.59) Tons 199.49
 Master Ayr Built at Ayr By whom built McKnight & McCready When built 1884
 Engines made at Glasgow By whom made John Gilman & Co when made 1884
 Boilers made at " By whom made Lindsay Burnett & Co when made 1884
 Registered Horse Power 55 Owners Mrs. W. H. H. & Co. Port belonging to Glasgow

ENGINES, &c.—

Description of Engines Compound Inverted Direct Acting
 Diameter of Cylinders 18" & 36" Length of Stroke 28" No. of Rev. per minute 100 Point of Cut off, High Pressure Var. Low Pressure "
 Diameter of Screw shaft 6 3/4" Diam. of Tunnel shaft 6 1/4" Diam. of Crank shaft journals 6 3/4" Diam. of Crank pin 6 3/4" size of Crank webs 6 1/2" x 8 1/2"
 Diameter of screw 9 ft. Pitch of screw 13'-6" No. of blades four state whether moveable no total surface "
 No. of Feed pumps One diameter of ditto 2" Stroke 28" Can one be overhauled while the other is at work no
 No. of Bilge pumps One diameter of ditto 2" Stroke 28" Can one be overhauled while the other is at work no
 Where do they pump from All Compartments
 No. of Donkey Engines One Size of Pumps 5 Cylts 4" x 8" stroke Where do they pump from Sea, Bilge & Hold

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 2 1/2" Are they connected to condenser, or to circulating pump To circulating
 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 On ship previous to launching
 Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from Upper platform

BOILERS, &c.—

Number of Boilers One Description Round Horizontal Whether Steel or Iron Steel (part Iron)
 Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test 2^d June 1884
 Description of superheating apparatus or steam chest Vertical dome
 Can each boiler be worked separately no Can the superheater be shut off and the boiler worked separately no
 No. of square feet of fire grate surface in each boiler 33 ft Description of safety valves direct spring No. to each boiler Two
 Area of each valve 8.29" Are they fitted with easing gear yes No. of safety valves to superheater no area of each valve no
 Are they fitted with easing gear no Smallest distance between boilers and bunkers or woodwork 6'-0" Diameter of boilers 11'-0"
 Length of boilers 9'-0" description of riveting of shell long. seams treb. lap circum. seams d. lap Thickness of shell plates 7/8" iron
 Diameter of rivet holes 1 3/16" whether punched or drilled drilled pitch of rivets 4 3/4" Lap of plating 7/4"
 Percentage of strength of longitudinal joint 72 working pressure of shell by rules 90 lbs size of manholes in shell 16" x 12"
 Size of compensating rings double riveted ring 5' x 3/4" No. of Furnaces in each boiler Two
 Outside diameter 39 3/4" length, top 6'-5 3/8" bottom 8'-6" thickness of plates 1 3/32" description of joint welded if rings are fitted up joint
 Greatest length between rings 3'-2 1/8" working pressure of furnace by the rules 80 lbs combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"
 Pitch of stays to ditto, sides 8" x 8" back 8 1/2" x 7 1/8" top 8" x 9" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 80 lbs Diameter of stays at smallest part 1.14" working pressure of ditto by rules 83 lbs end plates in steam space, thickness 7/16"
 Pitch of stays to ditto 14" x 14" how stays are secured d. nuts working pressure by rules 86 lbs diameter of stays at smallest part 2 1/8" working pressure by rules 109 lbs Front plates at bottom, thickness 5/8" Back plates, thickness 5/8"
 Greatest pitch of stays no working pressure by rules no Diameter of tubes 3 1/2" pitch of tubes 4 3/4" thickness of tube plates, front 5/8" back 5/8" how stayed stubs pitch of stays 9 1/2" x 14 1/4" width of water spaces 6"
 Diameter of Superheater or Steam chest 2'-3" length 3'-5 1/2" thickness of plates 7/16" description of longitudinal joint lap diam. of rivet holes 7/8"
 Pitch of rivets 2 1/2" working pressure of shell by rules no lbs diameter of flue no thickness of plates no If stiffened with rings no
 Distance between rings no working pressure by rules no end plates of superheater or steam chest; thickness 7/16" how stayed 2 stays
1 3/4" diameter Superheater or steam chest; how connected to boiler riveted

Copy (Signed) John Brockat Newcastle

DONKEY BOILER— Description *Vertical*
Made at *Gateshead* by whom made *Clark Chapman & Co* when made *1884* where fixed *Stokehold*
Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *1401* fire grate area *11 ft* description of safety valves *Direct Spring* No. of safety valves *one* area of each *4"* if fitted with easing gear *yes* if steam from main boilers can enter the donkey boiler *no* diameter of donkey boiler *4'-6"* length *9'-0"* description of riveting *S. Lap.*
Thickness of shell plates *3/8"* diameter of rivet holes *3/4"* whether punched or drilled *ps.* pitch of rivets *3"* lap of plating *3 3/4"*
per centage of strength of joint *75%* thickness of crown plates *1/16"* stayed by *4 stays 1 3/8" diam.*
Diameter of furnace, top *3'-2"* bottom *3'-10"* length of furnace *4'-0"* thickness of plates *1/2"* description of joint *S. L.*
Thickness of furnace crown plates *1/16"* stayed by *as above* working pressure of shell by rules *80 lbs*
Working pressure of furnace by rules *87 1/2 lbs* diameter of uptake *12"* thickness of plates *3/8"* thickness of water tubes *3/8"*

SPARE GEAR. State the articles supplied:— *Two top & bottom connecting rod bolts, one set Coupling bolts, two main bearing bolts, one set of feed & ridge valves, also donkey suction & discharge valves, bolts nuts and various sizes of iron assorted*

The foregoing is a correct description,
John Gilman & Co Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The Engines are of good workmanship and materials and are now in good order and safe working condition & eligible in our opinion to be noted in the Register Book. Lloyds L.C. 9/84*

It is submitted that this vessel is eligible to have the notification & LMC recorded M 20/11/84

[Large blue scribble]

The amount of Entry Fee £ *1: 0: 0* received by me,
Special .. £ *8: 5: 0*
Donkey Boiler Fee .. £ *0: 0: 0*
Certificate (if required) .. £ *0: 0: 0* 3/9/1884
To be sent as per margin.
(Travelling Expenses, if any, £ *1: 2: 6*)

Committee's Minute
FRIDAY 21 NOV 1884
+ L M L

James Mollison John Sanders
Engineer Surveyors to Lloyd's Register of British & Foreign Shipping.
Clyde District