

REPORT ON MACHINERY.

No. 6442

THURSDAY 20 NOV 1884

No. in Survey held at Glasgow Date, first Survey October 12th 1883 Last Survey Nov 10th 1884

Reg. Book. S. S. "Bisagno" (Number of Visits 19) Tons 2290.05
1443.90

Master Rosacco Built at Dumbarton By whom built Messrs. Duncanson & Son When built 1884

Engines made at Glasgow By whom made Messrs. D. Stewart & Co when made

Boilers made at " " By whom made " " when made

Registered Horse Power 220 Owners Messrs. Raggio & Co Port belonging to Genoa

ENGINES, &c.—

Description of Engines Compound Inverted direct acting Surface Condensing
Diameter of Cylinders 35" x 64" Length of Stroke 42" No. of Rev. per minute 80 Point of Cut off, High Pressure 21" Low Pressure 21"
Diameter of Screw shaft 11 1/2" Diam. of Tunnel shaft 11" Diam. of Crank shaft journals 11 1/2" Diam. of Crank pin 11 3/4" size of Crank webs 7 x 14"
Diameter of screw 16 ft Pitch of screw 14 3/8" No. of blades 4 state whether moveable Yes total surface 75 sq ft
No. of Fed pumps two diameter of ditto 4" Stroke 22 1/2" Can one be overhauled while the other is at work Yes
No. of Bilge pumps two diameter of ditto 4" Stroke 22 1/2" Can one be overhauled while the other is at work Yes
Where do they pump from Sea and Bilges of each compartment
No. of Donkey Engines two Size of Pumps 4 1/2" cyl 8 1/2" str 10" Where do they pump from Sea Ballast tanks
hotwell and bilges of each compartment
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 1/2" dia Are they connected to condenser, or to circulating pump circ 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 previous to launching
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 2 cyl Mult Single Ended Whether Steel or Iron Steel
Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test September 25th 1884
Description of superheating apparatus or steam chest Horizontal dome
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 63 sq ft Description of safety valves direct spring No. to each boiler two
Area of each valve 15.9 sq" 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 3 1/2" Diameter of boilers 14 ft
Length of boilers 10 1/2" description of riveting of shell long. seams dbl riv butt circum. seams dbl riv lap Thickness of shell plates 3/4 full
Diameter of rivet holes 1 1/8" whether punched or drilled drilled pitch of rivets 5" Lap of plating Straps 1 1/8" x 3/8" x 1/2"
Per centage of strength of longitudinal joint 77% working pressure of shell by rules 85 lbs size of manholes in shell 12 1/2" x 15 1/4"
Size of compensating rings 5 1/2" x 3 1/4" No. of Furnaces in each boiler three
Outside diameter 3 1/4" length, top 6 1/2" bottom 9 1/2" thickness of plates 1/2" description of joint single riv butt if rings are fitted iron
Greatest length between rings 6 1/2" working pressure of furnace by the rules 80 lbs combustion chamber plating, thickness, sides 1/2" back 1/2" top 1/2"
Pitch of stays to ditto, sides 9 1/2" x 10" back 9 1/2" x 10" x 10" top 8" x 7 1/2" 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 1/8" working pressure of ditto by rules 80 lbs end plates in steam space, thickness 3/4"
Pitch of stays to ditto 15" x 15" how stays are secured dbl nuts working pressure by rules 96 lbs diameter of stays at smallest part 2 1/4" working pressure by rules 106 lbs Front plates at bottom, thickness 3/4" Back plates, thickness 3/4"
Greatest pitch of stays 12" x 9" working pressure by rules 160 lbs Diameter of tubes 3 1/2" pitch of tubes 4 1/2" x 4 1/2" thickness of tube plates, front 1/16" back 1/16" how stayed stay tubes pitch of stays 15" x 9 3/4" width of water spaces 5"
Diameter of Superheater or Steam chest 2 1/4" length 10 ft thickness of plates 1/16" description of longitudinal joint dbl riv lap diam. of rivet holes 13/16"
Pitch of rivets 3 1/2" working pressure of shell by rules 125 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 1/2" how stayed diagonal
one long stay 2 1/4" dia Superheater or steam chest; how connected to boiler connecting pipes 1 1/2" x 3/4" dbl riv lap

State if Report is also sent on the Hull of the



GLS150-6017

6742
280

DONKEY BOILER— Description *Coal, built single ended*
 Made at *Glasgow* by whom made *Messrs D Stewart & Co* when made *1884* where fixed *On main deck*
 Working pressure *60 lbs* tested by hydraulic pressure to *200 lbs* No. of Certificate *1439* fire grate area *24 sq ft* description of safety valves *direct spring* No. of safety valves *one* area of each *15 sq in* if fitted with easing gear *yes* if steam from main boilers can enter the donkey boiler *No* diameter of donkey boiler *6 ft* length *7 ft 6 in* description of riveting *all rivet lap*
 Thickness of shell plates *7/16* full diameter of rivet holes *15/16* whether punched or drilled *drilled* pitch of rivets *3 1/2* lap of plating *5 1/2*
 per centage of strength of joint *75%* thickness of *band* crown plates *3/4* full stayed by *2 1/2* stays *15* pitch
 Diameter of furnace, top *3 ft 11 1/2* bottom *3 ft* length of furnace *6 ft 6 in* thickness of plates *15/32* description of joint *single rivet butt*
 Thickness of furnace crown plates *3/4* stayed by *stay tubes & long stays 2 1/2 dia* working pressure of shell by rules *65 lbs*
 Working pressure of furnace by rules *65 lbs* diameter of uptake *6 in* thickness of plates *15/32* thickness of water tubes *1/2*

SPARE GEAR. State the articles supplied:— *2 fore rod top end bolts & nuts 2 fore rod bottom end bolts and nuts 2 main bearing bolts 1 set of coupling bolts 1 set of feed and bridge pump valves 1 set of piston springs 1 pair of top end brasses 1 pair of bottom end brasses 1 piston rod 1 crank shaft (single throw) 1 air pump rod 1 air pump rod 2 propeller blades 2 cond. tubes 2 hot water tubes 1 set of safety valve springs Assorted bolts & nuts & iron of various sizes*
 The foregoing is a correct description,
Duncan Stewart & Co Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.)
The Engines & Boilers of this Vessel have been constructed under special Survey, they are of good material and workmanship and are now in good order and safe working condition and eligible in my opinion to be noted in the Register (Book) L. No. 6. 11. 84.
With the exception of the crank shaft, the shafting was examined at the works of Messrs D Stewart & Co (the Engineers) and appeared good and free from defects.

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

G. L. Hindmarsh
 Engineer/Surveyor to Lloyd's Register of British & Foreign Shipping.

The amount of Entry Fee £ *2* : : received by me,
 Special .. £ *31* : :
 Donkey Boiler Fee .. £ : :
 Certificate (if required) .. £ : : *14/11/84*
 (To be sent as per margin.)
 (Travelling Expenses, if any, £ *8/-*)

Committee's Minute
 FRIDAY 21 NOV 1884
[Signature]

