

REPORT ON MACHINERY.

4208

No. 5899

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No. in Survey held at Glasgow London

Date, first Survey 28/10/81

Last Survey 14/9/82 1882

Reg. Book.

on the S.S. "Deerhound."

Tons

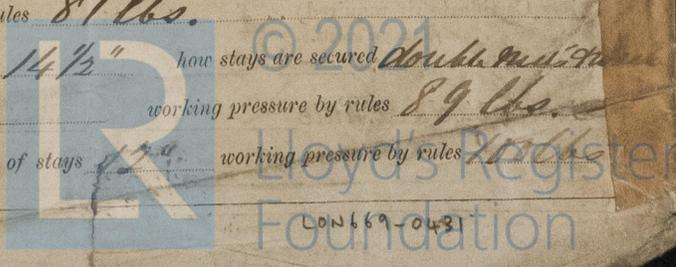
Master _____ Built at Millwall When built 1872
 Engines made at Glasgow By whom made R. H. Pearson & Co. when made 1882
 Boilers made at " By whom made Thos. Pennan & Co. when made 1882
 Registered Horse Power 40 Owners Wm. Roper, Robt. Thomson & Co. Port belonging to _____

ENGINES, &c.—

Description of Engines Compound Inverted direct acting
 Diameter of Cylinders 20" & 38" Length of Stroke 30" No. of Rev. per minute 80 Point of Cut off, High Pressure 7/8th Low Pressure 9/16th
 Diameter of Screw shaft 4" Diameter of Tunnel shaft 6 3/4" Diameter of Crank shaft journals 4" Diameter of Crank pin 4" size of Crank webs 5" x 8 1/2"
 Diameter of screw 10' 0" Pitch of screw 13' 6" 15' No. of blades 4 state whether moveable No total surface 24 sq ft.
 No. of Feed pumps One diameter of ditto 3" Stroke 15" Can one be overhauled while the other is at work "
 No. of Bilge pumps One diameter of ditto 3" Stroke 15" Can one be overhauled while the other is at work "
 Where do they pump from Sea, Holds, Tanks, Bilges
 No. of Donkey Engines one Size of Pumps 3" x 8" Where do they pump from Sea, Holdwell, Bilges, Holds, Tanks
 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
 No. of bilge injections one and sizes 3" diam Are they connected to condenser, or to circulating pump to circulating pump
 How are the pumps worked with levers from L. P. piston rod crosshead
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or 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
 Is the screw shaft tunnel watertight _____ and fitted with a sluice door yes worked from the upper platform.

BOILERS, &c.—

Number of Boilers One Description Cylindrical Single ended Multitubular
 Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs. Date of test 24th August 1882
 Description of superheating apparatus or steam chest Horizontal.
 Can each boiler be worked separately " Can the superheater be shut off and the boiler worked separately No.
 No. of square feet of fire grate surface in each boiler 49 Description of safety valves direct spring
 No. to each boiler two area of each valve 12, 56 sq in. 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"
 Diameter of boilers 10' 6" Length of boilers 10' 6" description of riveting of shell long. seams buttl. lap circum. seams double, lap.
 Thickness of shell plates 13/16" diameter of rivet holes 1 1/8" whether punched or drilled drilled pitch of rivets 4 1/4"
 Lap of plating 4 3/4" per centage of strength of longitudinal joint 73.5 working pressure of shell by rules 82.3 lbs.
 Size of manholes in shell 14" x 11" size of compensating rings 20 1/2" x 18 1/2"
 No. of Furnaces in each boiler two outside diameter 3' 6" length, top 6' 9" bottom 9' 9"
 Thickness of plates 1/2" steel description of joint double butt if rings are fitted yes greatest length between rings 4' 0"
 Working pressure of furnace by the rules 49 lbs.
 Combustion chamber plating, thickness, sides 7/16" back 7/16" top 1/2"
 Pitch of stays to ditto sides 8 1/4" x 4" back 8 1/4" x 8 1/4" top under 26" x 6" x 1 1/4" pitch 9"
 If stays are fitted with nuts or riveted heads Nuts both sides working pressure of plating by rules 49 lbs.
 Diameter of stays at smallest part 1 1/16" working pressure of ditto by rules 81 lbs.
 End plates in steam space, thickness 1 1/16" pitch of stays to ditto 14 1/2" x 14 1/2" how stays are secured double nutted
 Working pressure by rules 80 lbs. diameter of stays at smallest part 2 1/4" working pressure by rules 89 lbs.
 Front plates at bottom, thickness 1 1/16" Back plates, thickness 1 1/16" greatest pitch of stays 12 1/2" working pressure by rules _____



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Diameter of tubes $3\frac{1}{2}$ " pitch of tubes $4\frac{1}{2}$ " thickness of tube plates, front $\frac{7}{16}$ " back $\frac{1}{16}$ "
 How stayed *S. tubes* pitch of stays $14\frac{1}{2}$ " width of water spaces 6"
 Diameter of Superheater or Steam chest 3'6" length 4'6"
 Thickness of plates $\frac{1}{2}$ " description of longitudinal joint *Single lap* diameter of rivet holes $\frac{7}{8}$ " pitch of rivets $2\frac{1}{4}$ "
 Working pressure of shell by rules 110lbs. 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 $9\frac{1}{16}$ " How stayed *rod stay 2 1/4" dia double nut, cross*
 Superheater or steam chest; how connected to boiler *Socketed Nostr.*

DONKEY BOILER— Description *Vertical, two cross tubes, non shell, joints 7'0"*
 Made at *Glasgow* By whom made *Thos. Thomson & Co* when made 1882.
 Where fixed in *Stokeloid* working pressure 80lbs. Tested by hydraulic pressure to 160lbs. No. of Certificate 837
 Fire grate area Description of safety valves *direct spring* No. of safety valves *one* area of each 7.07 sq. in.
 If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler
 Diameter of donkey boiler 5'0" length 9'0" description of riveting *double socketed lap joint*
 thickness of shell plates $\frac{7}{16}$ " diameter of rivet holes $\frac{3}{4}$ " whether punched or drilled *drilled*
 pitch of rivets $2\frac{1}{4}$ " lap of plating $3\frac{1}{8}$ " per centage of strength of joint *67 Rule 19 Rivet*
 thickness of crown plates $\frac{7}{16}$ " stayed by *4 rod stay 2" dia*
 Diameter of furnace, top 3'11" bottom 4'4" length of furnace 4'5"
 thickness of plates $\frac{1}{3}$ " description of joint *Single lap,*
 thickness of furnace crown plates $\frac{7}{16}$ " stayed by *4 rod stay 2" dia*
 Working pressure of shell by rules 82lbs. working pressure of furnace by rules 92lbs.
 diameter of uptake $11\frac{3}{4}$ " thickness of plates $\frac{3}{8}$ " thickness of water tubes $\frac{7}{16}$ "

The foregoing is a correct description,
Thos. Thomson & Co Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.) *The above engines and*
boilers were surveyed during construction, the
workmanship and materials being good. These are
recommended to the consideration of the Committee.
The engineering has been forwarded to Glasgow to be put
on board the vessel building at that port.
The machinery and boilers have been securely fitted on board, the
safety valves were set to 80 lbs working pressure and the engines work
satisfactorily.
It is submitted that this vessel is eligible to have the notification
+ L. M. C. 12.82 recorded in the Register Book

The amount of Entry £ 2.00:0 received by me,
 Special £ 10.10:0 Glasgow
 Certificate (if required) : : 6/11/82
 To be sent as per margin
 (Printing expenses, if any, £ 10/-) J.F.C. 8/1/83
 Committee's Minute 11th January, 1883.

Thos. Thomson & Co
 J. F. C.
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping
 London

