

REPORT ON MACHINERY.

No. 8703

Received at London Office 10 JUNE 1884

No. in Survey held at Glasgow Date, first Survey 2nd May 1883 Last Survey 12th May 1884
 Reg. Book. _____ (Number of Visits 35) _____

on the S.S. "Portescue" Tons 755.52

Master Simmons Built at Port Glasgow By whom built Messrs Murdock & Murray When built 1884

Engines made at Glasgow By whom made Messrs Muir & Houston when made 1884

Boilers made at _____ By whom made _____ when made 1884

Registered Horse Power 98 Owners Messrs John Holman & Sons Port belonging to London Exeter

ENGINES, &c.—

Description of Engines Compound Inverted Direct Acting Surface Condensing
 Diameter of Cylinders 24" & 52" Length of Stroke 39 No. of Rev. per minute 92 Point of Cut off, High Pressure 21" Low Pressure 19"
 Diameter of Screw shaft 9" Diam. of Tunnel shaft 8 1/2" Diam. of Crank shaft journals 9" Diam. of Crank pin 9" size of Crank webs 6" x 11 1/2"
 Diameter of screw 11 1/4" Pitch of screw 16 1/8" No. of blades 4 state whether moveable No total surface 44 sq ft
 No. of Feed pumps 2 diameter of ditto 3 1/2" Stroke 21" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 diameter of ditto 3 1/2" Stroke 21" Can one be overhauled while the other is at work Yes
 Where do they pump from All compartments
 No. of Donkey Engines Two Size of Pumps 6" cyl. 4.848" x 5", 8 1/2" x 5" 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 3 1/2" Are they connected to condenser, or to circulating pump circulating 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

OILERS, &c.—

Number of Boilers One Description Cyl. Mult. Single ended Whether Steel or Iron Steel
 Working Pressure Eighty lbs Tested by hydraulic pressure to 160 lbs Date of test February 25th 1884
 Description of superheating apparatus or 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 66 Description of safety valves direct spring No. to each boiler two
 Area of each valve 14.9 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 14.10
 Length of boilers 10 ft description of riveting of shell long. seams treb riv lap circum. seams dbl riv lap Thickness of shell plates 13/16"
 Diameter of rivet holes 1 1/4" whether punched or drilled rimed pitch of rivets 5" Lap of plating 8 1/2"
 Per centage of strength of longitudinal joint 75% 8 1/4" riv working pressure of shell by rules 82 lbs size of manholes in shell 11 1/2" x 16"
 Size of compensating rings 5" x 3/4" No. of Furnaces in each boiler three
 Outside diameter 4 ft length, top 6 ft bottom 8' 9" thickness of plates 5" description of joint Welded if rings are fitted Yes
 Greatest length between rings 6 ft working pressure of furnace by the rules 83 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" x 8" top 8" x 8" If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 84 Diameter of stays at smallest part 1 1/4" scur working pressure of ditto by rules 93 lbs end plates in steam space, thickness 3/4"
 Pitch of stays to ditto 15" x 15 1/4" how stays are secured dbl nuts & washers working pressure by rules 88 lbs diameter of stays at smallest part 2" working pressure by rules 82 lbs Front plates at bottom, thickness 7/16" Back plates, thickness 9/16"
 Greatest pitch of stays 13" x 8" working pressure by rules 93 lbs Diameter of tubes 3 1/2" pitch of tubes 4 3/4" thickness of tube plates, front 11/16" back 11/16" how stayed stay tubes pitch of stays 9 1/2" x 14" width of water spaces 6"
 Diameter of Superheater or Steam chest ✓ length ✓ thickness of plates ✓ description of longitudinal joint ✓ diam. of rivet holes ✓
 Pitch of rivets ✓ working pressure of shell by rules ✓ 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 ✓ how stayed ✓
 Superheater or steam chest; how connected to boiler ✓

DONKEY BOILER Description *Vertical*
 Made at *Glasgow* by whom made *Messrs Muir & Houston* when made *1884* where fixed *Stokehold*
 Working pressure *60 lbs* tested by hydraulic pressure to *120 lbs* No. of Certificate *1329* fire grate area *18 sq 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 *5' 7"* length *12 ft* description of riveting *dbl riv lap*
 Thickness of shell plates *3/8"* diameter of rivet holes *7/8"* whether punched or drilled *punched* pitch of rivets *3 1/2"* lap of plating *5 1/2"*
 per centage of strength of joint *75 p 81 n* thickness of crown plates *1/2"* stayed by *✓*
 Diameter of furnace, top *4' 7"* bottom *5' 2"* length of furnace *5 ft* thickness of plates *4/16"* description of joint *S. R. lap*
 Thickness of furnace crown plates *4/16"* stayed by *✓* working pressure of shell by rules *65 lbs*
 Working pressure of furnace by rules *70 lbs* diameter of uptake *13"* thickness of plates *3/8"* thickness of water tubes *3/8"*

SPARE GEAR. State the articles supplied:— *2 connecting rods top end bolts and nuts 2 bottom end ditto*
2 main bearing bolts 1 set of coupling bolts 1 set of feed and bilge pump valves 1 propeller
1 crank shaft Assorted bolts & nuts and Iron of various sizes

The foregoing is a correct description,
Muir & Houston Manufacturers

General Remarks (State quality of workmanship, opinions as to class, &c.)
The engines & boilers of this vessel are of good material and workmanship; they are now in good order and safe working condition and in my opinion eligible to be noted in the Register Book "LLOYD'S M.C." 5.84.

It is submitted that this vessel is eligible to have the notification + fee of 5.84 recorded

9/6/84

The amount of Entry Fee *✓* £ *1 : 0 : 0* received by me,
 Special .. £ *14 : 14 : 0*
 Donkey Boiler Fee .. £ *0 : 0 : 0*
 Certificate (if required) .. £ *0 : 0 : 0* *21/5/1884*
 To be sent as per margin.
 (Travelling Expenses, if any, £ *1/5/-*)

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

Committee's Minute TUESDAY 10 JUNE 1884
+ Shely

