

REPORT ON MACHINERY

No. 4484

TUESDAY 1 FEB 1887

Received at London Office

No. in Survey held at Glasgow Date, first Survey 15th Dec^r 1885 Last Survey Januar^y 1884
 Reg. Book. on the S.S. "Queen Victoria" (Number of Visits 49) Tons 1506.42
 Master J.A. Oregan Built at Glasgow By whom built A. Stephen & Sons When built 1884
 Engines made at Glasgow By whom made " " " " when made 1884
 Boilers made at " " " " " " when made 1884
 Registered Horse Power 240 Owners Thomas Dunlop & Sons Port belonging to Glasgow

ENGINES, &c.
 Description of Engines Triple Expansion (Free Cranks)
 Diameter of Cylinders 20" 33" 51" Length of Stroke 42" No. of Rev. per minute 60 Point of Cut off, High Pressure 26" 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 1/2" size of Crank web 14 1/2" x 4 1/2"
 Diameter of screw 16" 6" Pitch of screw 14" 0" No. of blades 4 state whether moveable Yes total surface 53 sq ft
 No. of Feed pumps Two diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps Two diameter of ditto 4 1/2" Stroke 24" 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 4" x 4" Stroke x 14 1/4" pump Where do they pump from Sea & Astwell + Ballast 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 Yes
 No. of bilge injections One and sizes 4" 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 Bilge pipes to Forehold How are they protected By wood casing
 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 Slip previous to launch
 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
 Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 18th December 1886
 Description of superheating apparatus or steam chest Longitudinal Receiver
 Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately Yes
 No. of square feet of fire grate surface in each boiler 44 sq ft Description of safety valves Direct Spring No. to each boiler Two
 Area of each valve 9.62" Are they fitted with easing gear Yes No. of safety valves to superheater 1 area of each valve —
 Are they fitted with easing gear Yes Smallest distance between boilers and bunkers or woodwork 15" Diameter of boilers 12" 0 1/2"
 Length of boilers 14' 4 1/8" description of riveting of shell long. seams Double riveted circum. seams Double riveted Thickness of shell plates 1 1/8"
 Diameter of rivet holes 1 1/4" whether punched or drilled Drilled pitch of rivets 4 1/2" x 3 5/8" Lap of plating Straps 1" 8 1/2" x 1 1/2"
 Per centage of strength of longitudinal joint 83% working pressure of shell by rules 168 lbs size of manholes in 16" x 12"
 Size of compensating rings Double piece No. of Furnaces in each boiler Four
 Outside diameter 3' 8" length, top 4' 0 1/2" bottom 3' 11" thickness of plates 9/16" description of joint Corrugated if rings are fitted Yes
 Greatest length between rings — working pressure of furnace by the rules 160 lbs combustion chamber plating, thickness, sides 1/32" back — top 1/32"
 Pitch of stays to ditto, sides 4" x 4" back — top 4" x 4 3/4" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 146 lbs Diameter of stays at smallest part 1 1/4" working pressure of ditto by rules 160 lbs end plates in steam space, thickness 1 1/2"
 Pitch of stays to ditto 15" x 15 3/4" how stays are secured By double nut working pressure by rules 160 lbs diameter of stays at smallest part 4 1/4" area working pressure by rules 163 lbs Front plates at bottom, thickness 15/16" Back plates, thickness —
 Greatest pitch of stays — working pressure by rules — Diameter of tubes 3 1/2" pitch of tubes 4 3/8" x 4 3/4" thickness of tube plates, front 1 1/6" back 15/16" how stayed By tubes pitch of stays 9 1/4" x 13 1/4" width of water spaces 6"
 Diameter of Superheater or Steam chest 3 1/2" length 9' 6" thickness of plates 1/16" description of longitudinal joint Double riv. diam. of rivet holes 13/16"
 Pitch of rivets 2 3/16" 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 9/16" how stayed One stay 2 1/8" dia
 Superheater or steam chest; how connected to boiler Seck piece

Form No. 6 (State of Reports as sent on the H.M.S. of the Ship)

7784 g/s.

DONKEY BOILER— Description *Round Vertical*
 Made at *Glasgow* by whom made *A. Stephen & Sons* when made *1884* where fixed *above*
 Working pressure *70 lbs* tested by hydraulic pressure to *140 lbs* No. of Certificate *1481* fire grate area *23 ft²* description of safety
 valves *Direct Spring* No. of safety valves *Two* 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 *6' 6"* length *12 ft high* description of riveting *Lap double*
 thickness of shell plates *13/32"* diameter of rivet holes *7/8"* whether punched or drilled *Drilled* pitch of rivets *3 1/2"* lap of plating *4"*
 per centage of strength of joint *73* thickness of crown plates *10/16"* stayed by *ten stays 1 1/4" dia*
 Diameter of furnace, top *5' 1"* bottom *5' 10"* length of furnace *5' 9"* thickness of plates *8/16"* description of joint *Lap joint*
 Thickness of furnace crown plates *9/16"* stayed by *as above* furnace fitted with *screw stays (four rows)* working pressure of shell by rules *80 lbs*
 Working pressure of furnace by rules *—* diameter of uptake *15"* thickness of plates *8/16" iron* thickness of water tubes *7/16"*

SPARE GEAR. State the articles supplied: *Two propeller blades with 3 studs & nuts, 2 bolts & nuts for tops & 2*
bolts & nuts for bottom ends of connecting rods, 2 main bearing bolts & coupling bolts, 1 set of valves with seat
for feed pumps and 1 set for bilge pumps, also valves for air & circulating pumps, 6 boiler
tubes & 6 Condenser tubes, Assortment of bolts, nuts, iron &c

The foregoing is a correct description,
A. Stephen & Sons Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *These Engines & Boilers are*
of good workmanship & materials and are now in good order
& safe working condition and eligible in my opinion to be entered
in the Register Book **Lloyd's M.C. 1/84**

This submitted that this vessel
 is eligible to have the notification
 + sub 157 recorded.

12/57

The amount of Entry Fee .. £ *2* : : received by me,
 Special .. £ *32* : :
 Donkey Boiler Fee .. £ : :
 Certificate (if required) .. £ : : *31/1/1884*
 To be sent as per margin.
 (Travelling Expenses, if any, £ *8/-*)

Committee's Minute **TUESDAY 1 FEB 1887**
L Mb

James Morrison
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Clyde District
 Lloyd's Register
 Foundation