

REPORT ON MACHINERY.

No. 6391

Received at London Office THURSDAY 25, OCT 1883

No. in Survey held at Glasgow Date, first Survey January 1883 Last Survey Oct 17 1883

Reg. Book. Glasgow on the Screw Steamer "Gouvariro" (Number of Visits 47) Tons 2965

Master C. Owen Mallett Built at Glasgow By whom built J. & C. Elder & Coy When built 1883

Engines made at Glasgow By whom made J. & C. Elder & Coy when made 1883

Boilers made at " By whom made " when made 1883

Registered Horse Power 600 Owners New Zealand Shipping Coy Port belonging to Lyttelton

ENGINES, &c.—

Description of Engines Compound Inverted Direct Acting
 Diameter of Cylinders 46" & 88" Length of Stroke 54" No. of Rev. per minute 68 Point of Cut off, High Pressure Small Low Pressure "
 Diameter of Screw shaft 17" Diam. of Tunnel shaft 16" Diam. of Crank shaft journals 14 1/2" Diam. of Crank pin 14 1/2" size of Crank webs 12 3/4" x 2" 11"
 Diameter of screw 18 1/2" Pitch of screw 24"-6" mean No. of blades Four state whether moveable Yes total surface 108 sq ft
 No. of Feed pumps Two diameter of ditto 6 1/2" Stroke 25 1/2" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps Two diameter of ditto 6 1/2" Stroke 25 1/2" Can one be overhauled while the other is at work Yes
 Where do they pump from All Compartments
 No. of Donkey Engines One Size of Pumps 12" x 4" x 12" stroke Where do they pump from From sea bilge & stowell

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 10" pipe 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 Main Steam pipe How are they protected By non-corrosive
 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 being launched
 Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from Upper platform

BOILERS, &c.—

Number of Boilers Three Description Round Horizontal Whether Steel or Iron Steel
 Working Pressure 110 lbs Tested by hydraulic pressure to 220 lbs Date of test 27th Aug 1883
 Description of superheating apparatus or steam chest None
 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 130 1/2 Description of safety valves Direct Spring No. to each boiler Three
 Area of each valve 21.64" 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 12" Diameter of boilers 13'-8"
 Length of boilers 17'-3" description of riveting of shell long. seams Double riveted circum. seams Double riveted Thickness of shell plates 1 5/16"
 Diameter of rivet holes 1 1/16" whether punched or drilled Drilled pitch of rivets 6 3/8" + 3 1/2" Lap of plating Straps 15" x 7/8"
 Per centage of strength of longitudinal joint 8 2/3% working pressure of shell by rules 122 lbs size of manholes in shell 16" x 12"
 Size of compensating rings Larged rings fitted No. of Furnaces in each boiler Six
 Greatest length between rings " working pressure of furnace by the rules 125 lbs combustion chamber plating, thickness, sides 1 3/32" back 9/16" top 1 3/32"
 Pitch of stays to ditto, sides 1 3/4" x 1 1/2" back " top 1 3/4" x 1 1/2" stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 112 lbs Diameter of stays at smallest part 2 3/8" working pressure of ditto by rules 132 lbs end plates in steam space, thickness 1 3/16"
 Pitch of stays to ditto 14 3/4" x 14 3/4" how stays are secured By double nuts working pressure by rules 112 lbs diameter of stays at smallest part 2 3/8" working pressure by rules 112 lbs Front plates at bottom, thickness 1 5/16" Back plates, thickness "
 Greatest pitch of stays " working pressure by rules " Diameter of tubes 3 1/2" pitch of tubes 4 3/4" thickness of tube plates, front 1/16" back 1/16" how stayed By tubes pitch of stays 14 1/2" x 9 1/2" width of water spaces 4"
 Diameter of Superheater or Steam chest None 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 "

State if Report is also sent on the Hull of the Ship

6291 gr

DONKEY BOILER— Description *Round Horizontal*
 Made at *Glasgow* by whom made *Anderson & Lyall* when made *1883* where fixed on *upper deck*
 Working pressure *110 lbs* tested by hydraulic pressure to *220* No. of Certificate *1184* fire grate area *225* description of safe
 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 *8' 2"* length *8' 9"* description of riveting *Double riveted Lap*
 Thickness of shell plates *1 1/16"* diameter of rivet holes *1 3/16"* whether punched or drilled *Drilled* pitch of rivets *1 1/2" x 2 1/2"* lap of plating *4"*
 Percentage of strength of joint *48%* thickness of *Top end* plates *1 3/16"* stayed by *Bar Stays 2 3/8" dia 15 1/2" x 10" pitot fitted*
 Diameter of furnace *2' 6"* bottom *✓* length of furnace *6' 9"* thickness of plates *7/16" + 9/16"* description of joint *Double Strapped*
 Thickness of *Combustion Chamber plates* stayed by *Stay Screws 1 1/4" dia 7 1/2" x 7 1/4" pitot* working pressure of shell by rules *133*
 Working pressure of furnace by rules *110 lbs* diameter of uptake *✓* thickness of plates *✓* thickness of water tubes *✓*

SPARE GEAR. State the articles supplied:— *one pair of braces for Connecting Rod bottom end*
one Air pump bucket, Rod delivery below seat & studs two main bearing bolts
four Connecting Rod bolts, one set Coupling bolts two Lead & two Pilge valves with ten
two Propeller blades (brass) assortment of bolts & nuts, 29 boiler studs & 58 Condens
one screw shaft & one patent Coupling
 The foregoing is a correct description,
John Elder & Son Manufacturer. *Besides the above mentioned articles a considerable*
quantity of spare Gear has been supplied.

General Remarks (State quality of workmanship, opinions as to class, &c.) *These Engines & Boilers are*
of good workmanship and materials and are now in good
order & safe working and eligible in my opinion to be noted
in the Register Book Lloyd's M.C. 10/83

It is to be observed that the
 entries to be made in this
 register are to be made
 in the margin of the
 page & 10. 43 recorded
 25/10/83

The amount of Entry Fee .. £ 3 : 0 : 0 received by me.
 Special £ 50 : 0 : 0
 Donkey Boiler Fee £ 0 : 0 : 0
 Certificate (if required) .. £ 0 : 0 : 0 *23/10/83*
 To be sent as per margin.
 (Travelling Expenses, if any, £)

Committee's Minute FRIDAY 26 OCT 1883
 + *[Signature]*

James Mollison
 Engineer Surveyor to Lloyd's Register of British & Foreign Ships
Clyde District
 Lloyd's Register
 Foundation