

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S CERTIFICATE, & REPORT, ENGINES.

Description *Compound, Inverted Direct Acting*
 Made by *James J. Elder & Co Glasgow*
 In the year *1875*
 Present condition *New*
 Diameter of cylinder *One 7' 4" & Two 6' 2"*
 Length of stroke *4 ft. 3"*
 No. of revolutions per minute *65*
 Point of cut off *not ascertained*
 Paddle, or Screw *Screw*
 Nominal Horse Power *200*
 Diameter of screw, ~~not ascertained~~ *17' 0"*
 Pitch of screw *25' 0"*
 No. of blades, *4* total surface
 No. of bilge pumps *Two* and size *6 1/2" x 20" Stroke*
 Do they pump from each compartment *Yes*
 Is there provision made for pumping }
 from the wings of the stoke hole } *Yes*

Are all the bilge suction pipes fitted with roses *Yes*
 What vacuum and steam gauges are }
 there attached to the engines } *One vacuum, Two Steam and*
 and boilers } *One Compound in Engine Room &*
 No. of feed pumps *Two* and sizes *6 1/2" dia x 20" Stroke*
 Description and size of } *not double acting 4 7/8" x 8" Stroke*
 Donkey Engine... }
 Will it feed the boilers, pump }
 from the bilges, and pump } *Yes*
 on deck }
 Can it be driven by steam }
 from a separate boiler } *Yes*
 No. of bilge injections *Two* and sizes *connected to circulating pumps*
 Are they fitted with non return valves *Yes*
 Is there a hand pump in the engine room *Yes*
 Can it be worked by the main engines *Yes*
 Is there a deck hose of sufficient length }
 to reach to any part of the vessel } *Yes*

CONNECTIONS ON HULL.

Are all connections with the sea }
 direct on the skin of the ship } *Yes*
 Are they Kingston valves or common cocks *Screw down Valves & Cocks*
 Are they fixed sufficiently high on }
 the ship's side to be seen } *Yes, they are fitted on*
 without lifting the stokehole } *the turn of the Bilge*
 plates }
 Are the discharge pipes above or }
 below the deep water line } *Above*
 Are they each fitted with a discharge }
 valve on the plating of the vessel } *Yes*

Are any pipes carried through the bunkers *No*
 If so state how protected
 When was the stern tube, }
 propellor, screw shaft, } *On Slip previous to being launched*
 and all connections }
 examined in dry dock }
 How are the pipes, cocks, and valves }
 arranged so as to prevent } *Intermediate, Cock on Donkey*
 an unintentional connection } *is open at bottom & has single*
 between the sea and the bilge } *ported plug.*
 Have the bilge suction non- }
 return valves fitted or not } *No.*

BOILERS.

Number *Two Round, Horizontal, with 3*
 Description *Surfaces in each end fired from & aft*
 Made by *J. Elder & Co*
 In the year *1875*
 Present condition *New*
 When last extensively repaired
 Working pressure *75 lbs*
 When tested by Hydraulic pressure *not ascertained*
 To what pressure tested *reported to be 150 lbs*
 Any super-heating apparatus *Yes*
 Describe it *Round, Vertical, with Single Flue*
 Can each boiler be worked separately *Yes*
 Is each boiler fitted with a separate steam gauge *Two Gauges*

Can the super-heater be shut off and }
 the boilers worked separately } *No*
 No. of safety valves on each boiler *Two*
 Description and area of each safety valve *Direct Spring, 31.9" area*
 No. of square feet of fire-grate }
 surface in each boiler } *126 ft.*
 Is there a separate blow off and }
 brine cock on each boiler, } *Yes*
 independent of those }
 on the vessel's skin }
 Is the screw shaft tunnel water }
 tight and fitted with a } *Yes*
 sluice door on bulkhead }
 Are all pipes, cocks, and roses in con- }
 nection with these boilers acces- } *Yes*
 sible to the engineer at all times }

Manufacturer.

I hereby certify that the whole of the above Machinery and Boilers of the Iron (~~and Wood~~) Screw (~~and Paddle~~)
 Steam Vessel *"Australia"* owned by *J. A. Mc. J. G. W. Jamieson and*
 of the Port of *Glasgow* of *17/14* Tons Register, and *500* Nominal Horse Power,
 have been carefully inspected and examined by *me* at *Glasgow* and found to be
 at this date, viz., *Decr 23rd 1875* in good order and safe working condition.

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