

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S CERTIFICATE & REPORT.

ENGINES.

Description Compound, Inverted Direct Acting
Made by Messrs A & L Inglis & Co., Glasgow
In the year 1895
Present condition New
Diameter of cylinder 28 1/2" x 50"
Length of stroke 30"
No. of revolutions per minute 80
Point of cut off 8" to 23"
Paddle, or Screw Screw
Nominal Horse Power 110
Diameter of screw, or of paddle wheel 11" 6"
Pitch of screw 1 1/4" 9"
No. of blades, total surface 4 40 ft
No. of bilge pumps 2 and sizes one 3" x 30" stroke & one 5 1/4" x 4"
Do they pump from each compartment Yes
Is there provision made for pumping from the wings of the stoke hole No. They pump from Engine Room

Are all the bilge suction pipes fitted with roses Yes
What vacuum and steam gauges are there attached to the engines and boilers... one Vacuum, one Compound & one Steam Gauge in Engine Room & one Steam, in stoke hole
No. of feed pumps 2 and sizes one 3" x 30" stroke one 5 1/4" x 4"
Description and size of Donkey Engine... Inverted double acting, 3 1/2" x 4"
Will it feed the boilers, pump from the bilges, and pump on deck Yes
Can it be driven by steam from a separate boiler Yes
No. of bilge injections 1 and sizes 3 1/2" connected to Circulating Injection
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 No
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 No. The Kingston Valve is fitted on Paper Hood
Are they Kingston valves or common cocks Circulating Injection Valve is a Kingston the others are screw down valve & cocks
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehole plates All cocks & valves are in the Engine Room fitted on top of Bilge
Are the discharge pipes above or below the deep water line Circulating & Bilge Discharge below the others are above
Are they each fitted with a discharge valve on the plating of the vessel Yes

Are any pipes carried through the bunkers Yes. Bilge suction pipe Wood casing above hold
If so state how protected On ship previous to launching
When was the stern tube, propellor, screw shaft, and all connections examined in dry dock
How are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge Donkey, Sea & Bilge suction cock is open at bottom, the plug has single port inside
Have the bilge suction non-return valves fitted or not No

BOILERS.

Number One Round Horizontal with 3 Surfaces fired from forward
Description 3 Surfaces fired from forward
Made by Messrs A & L Inglis
In the year 1895
Present condition New
When last extensively repaired
Working pressure 65 lbs
When tested by Hydraulic pressure 130 lbs
To what pressure tested
Any super-heating apparatus No
Describe it
Can each boiler be worked separately
Is each boiler fitted with a separate steam gauge 2 Gauges

Can the super-heater be shut off and the boilers worked separately
No. of safety valves on each boiler Two
Description and area of each safety valve Direct Spring loaded
No. of square feet of fire-grate surface in each boiler 60 ft
Is there a separate blow off and brine cock on each boiler, independent of those on the vessel's skin Yes
Is the screw shaft tunnel water tight and fitted with a sluice door on bulkhead Yes
Are all pipes, cocks, and roses in connection with these boilers accessible to the engineer at all times Yes

A & L Inglis & Co. Glasgow Manufacturers

hereby certify that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel "Taiaroa" owned by J. Galbraith, Glasgow of the Port of Glasgow of 228.32 Tons Register, and 110 Nominal Horse Power, have been carefully inspected and examined by me at Glasgow and found to be at this date, viz., Sept. 13th 1895 in good order and safe working condition.

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

