

14497 ~~14500~~

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S CERTIFICATE.

ENGINES.

Description *Inverted Compound Surface Condensing* ✓
 Made by *G. Clark* ✓
 In the year *1875* ✓
 Present condition *new* ✓
 Diameter of cylinders *H.P. 32", L.P. 62"* ✓
 Length of stroke *36"* ✓
 No. of revolutions per minute *66 (about)* ✓
 Point of cut off *9" to 21" (expansion valve fitted)* ✓
 Paddle, or Screw *screw* ✓
 Nominal Horse Power *160* ✓
 Diameter of screw, or of paddle wheel *13 ft.* ✓
 Pitch of screw *12 to 18 feet* ✓
 No. of blades, *4* total surface *51 sq. ft.* ✓
 No. of bilge pumps *2*, and size *5 1/2 x 18 stroke single acting* ✓
 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 *pipes perforated* ✓
 What vacuum and steam gauges are there attached to the engines and boilers } *1 vacuum & 1 steam in engine room, 1 steam to each boiler in stoke hole* ✓
 No. of feed pumps *2*, and sizes *5 1/2 dia x 18 stroke single acting* ✓
 Description and size of Donkey Engine... } *Cyl: 8" dia x 6" stroke, Pump 4" dia x 6" double acting* ✓
 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 by Donkey boiler* ✓
 No. of bilge injections *1*, and sizes *3 1/2"* *Circulating pump* ✓
 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 } *yes* ✓
 Are they Kingston valves or common cocks *Common Valves & Cocks* ✓
 Are they fixed sufficiently high on the ship's side to be seen from the stokehole plates } *no* ✓
 Are the discharge pipes above or below the deep water line } *Just under main deck at deep load line* ✓
 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, and all connections examined in dry dock } *new* ✓
 How are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge } *Water can be run into ship by opening sea cocks to Donkey or bilge pumps, whilst the valves to bilge suction are open. (see sketch)* ✓
 Have the bilge suction non-return valves fitted or not } *none* ✓

BOILERS.

Number *2* ✓
 Description *Cylindrical* ✓
 Made by *G. Clark* ✓
 In the year *1875* ✓
 Present condition *good* ✓
 When last extensively repaired *new* ✓
 Working pressure *70 lbs per sq. inch* ✓
 When tested by Hydraulic pressure *1874* ✓
 To what pressure tested *140 lbs per sq. inch* ✓
 Any super-heating apparatus *none* ✓
 Describe it ✓
 Can each boiler be worked separately *yes* ✓
 Is each boiler fitted with a separate steam gauge *yes* ✓

Can the super-heater be shut off and the boilers worked separately } ✓
 No. of safety valves on each boiler *1 - low weight* ✓
 Description and area of each safety valve *low weight 5 1/2 dia = 23.8 sq. inches* ✓
 No. of square feet of fire-grate surface in each boiler } *4.5 sq. feet* ✓
 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* ✓

G. Clark Manufacturer.
G. Clark

I hereby certify that the whole of the above Machinery and Boilers of the Iron (~~or Wood~~) Screw (~~or Paddle~~) Steam Vessel *"Bermuda"* owned by *Quebec & Gulf Ports Steam Shipping Co.* of the Port of *Quebec* of *746* Tons Register, and *160* Nominal Horse Power, have been carefully inspected and examined by *me* at *Sunderland* and found to be at this date, viz., *May 12th 1875* in good order and safe working condition.

William Allison
 Engineer Surveyor to Lloyd's Register of Shipping.