Report No. 21380

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Description Compd. Invtd. S. A. Sfe Condg.

Made by Messrs. Forester & Coy.

When 1878 At Liverpool

Diameter of cylinders 2 of 28" 2 of 60" Length of stroke 4" 6"

No. of revolutions per minute 60

Point of cut off Variable

Diameter of screw shaft 15"

Diameter of crank shaft journals 15"

Diameter of screw, or of paddle wheel 20" 0"

Pitch of screw 26" 0"

No. of blades, 4 Total surface 70 ft.

No. of bilge pumps 2 and sizes 4½"

Do they pump from each compartment Yes

Are all the bilge suction pipes fitted with roses Yes

No. of feed pumps 2 and sizes 4½"

What gauges are there attached to the engines and boilers ... 1 Press gauge to each Boiler in S. Hold 1 Press. 1 Vac.c & 2 Compd. in E. R.

Description and size of Donkey Pumps ... Dle Acting 6" plunger 10" Stroke

Where do they pump from .... Sea Bilges, Condenser to Boilers Dk. and overbd.

No. of bilge injections 2 and sizes 6"

Are they connected to air, or circulating pumps Circulating

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.

MAIN BOILERS.

Number 3. Description Cyldrel R. Tubular

Made by Messrs. Forester & Coy.

When 1878. At Liverpool

Working pressure 80 lbs.

Tested by hydraulic pressure to 160 lbs., Date 19th Jany.

Description of super-heating apparatus .... Cyldrel Horizontal

Can each boiler be worked separately. Yes

Can the steam chest super-heater be shut off and the boilers worked separately No

Description and area of safety valves on each boiler .... 2 of Spring = 25.9" area each

No. of square feet of fire-grate surface in each boiler 108 ft. 324

Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin Yes

Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times................ Yes.

DONKEY BOILER.

Description Cyldrel Retn Tubular

Where fixed In recess in Stokehold

Working pressure 40 lbs.

Tested by hydraulic pressure to 80 lbs. Date 11th May

Description and area of safety valves D. Weight = 15.9" area

No. of square feet of fire grate 28 ft.

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship Yes

Are they Kingston valves or common cocks ... Common Cocks & chests

Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates .... Yes

Are the discharge pipes above or below the deep water line Level

Are they each fitted with a discharge valve on the plating of the vessel Yes

What pipes are carried through the bunkers Steam pipe

How are they protected Iron casing

When were the stern tube, propeller, screw shaft, and all connections examined in dry dock At this time

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge Yes

Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead Yes

Wo. Forrester & Coy Manufacturer.

I hereby certify that the whole of the above are correct particulars of the Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel "British Empire" owned by The British Ship Owners Coy Limited of the Port of Liverpool of 2152.69 Tons Register, and 300 Registered Horse Power, and that they have been carefully inspected and examined by me at Liverpool & Belfast and found to be at this date, viz., 8th August 1878 in good order and safe working condition.

Amount of Fee for Survey ... ... £ 15. 0. 0 Received

(Travelling Expenses, if any, £ 6. 10. 0) 3 9/8/78 J.W.S

J. G. Kingham

Engineer Surveyor to Lloyd's Register of Shipping.

[1000—1/9/76.]

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