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LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

Engines from S.S. "Richmond"

ENGINES.

Per 23/8/77

No. Port Report (if any) on Hull of Vessel.

Description Inverted Cy. Surface Condensing
Made by Messrs. Hall Russell & Co
When 1877 At Aberdeen
Diameter of cylinders 20" x 20" Length of stroke 21"
No. of revolutions per minute 90.
Point of cut off by expansion Valve from 10 to 3/4
Diameter of screw shaft 6"
Diameter of crank shaft journals 6"
Diameter of screw, or of paddle wheel 9" 2"
Pitch of screw 9" 3"
No. of blades Four Total surface 32 feet
No. of bilge pumps one and sizes 3" diam 21" stroke
Do they pump from each compartment Engine room only

Are all the bilge suction pipes fitted with roses Yes
No. of feed pumps one and sizes 3" diam 21" stroke
What gauges are there attached to the engines and boilers ... One water & Test Cocks on boiler and one each pressure & vacuum on Engines
Description and size of Inverted Cy. D. A. 7" diam 8" stroke Donkey Pumps ... 3 1/2" diam double acting pumps
Where do they pump from ... from Sea, Bilge, hot well to boiler through Condenser and on Deck
No. of bilge injections one and sizes 2 1/2" diam
Are they connected to air, or circulating pumps Air pumps
Is there a hand pump in the engine room No but donkey made to work by hand
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

Two Pumps worked by Deck Steam Winch for pumping Ballast Tanks MAIN BOILERS.

Number one Description Circular Tubular
Made by Messrs. Hall Russell & Co
When Aug 1877 At Aberdeen
Working pressure 60 lbs
Tested by hydraulic pressure to 120 lbs, Date 27/6/77
Description of super-heating apparatus Vertical dome
Can each boiler be worked separately

Can the super-heater be shut off and the boilers worked separately
Description and area of safety valves on each boiler Two Spring Safety by Hall Russell & Co 3 1/2" dia 18.24 area
No. of square feet of fire-grate surface in each boiler 26.6 feet
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 Round Vertical
Where fixed on Deck
Working pressure 60 lbs

Tested by hydraulic pressure to 120, Date 27/6/77
Description and area of safety valves Lower & Height 3.54 area
No. of square feet of fire grate 5.9 feet

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 ... Valves & Cocks
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 Above
Are they each fitted with a discharge valve on the plating of the vessel Yes

What pipes are carried through the bunkers None
How are they protected
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock Before Launch
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 No tunnel

Hall Russell & Co. Manufacturers

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 "Spey" owned by Messrs. Adam & Co of the Port of Aberdeen of 130.37 Tons Register, and 35 Registered Horse Power, and that they have been carefully inspected and examined by me at Aberdeen and found to be at this date, viz., 15 August 1877 in good order and safe working condition.

Amount of Fee for Survey 1 : 15 : 0
(Travelling Expenses, if any, £ 3-15-0 )
Substance allowance 2-11-0
Cabin & telegrams 5--
£ 6-11-0
one survey under night

Fees received by me and sent to Dundee Aug 17 1877 J. W. Peltie

John Stunzels Engineer Surveyor to Lloyd's Register of Shipping. Lloyd's Register Foundation IRON 473-0318