

Singapore *St. Osyth* 22545

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

<p>Description <i>Compound, Inverted, Direct Acting</i></p> <p>Made by <i>H. & W. Hawthorn & Co. Ltd.</i></p> <p>When <i>1894</i> At <i>Newcastle</i></p> <p>Diameter of cylinder <i>52" & 96"</i> Length of stroke <i>51"</i></p> <p>No. of revolutions per minute <i>50 approx.</i></p> <p>Point of cut off <i>Not ascertained</i></p> <p>Diameter of screw shaft <i>14 1/2"</i></p> <p>Diameter of crank shaft journals <i>15 1/2"</i></p> <p>Diameter of screw, or of paddle wheel <i>20 ft?</i></p> <p>Pitch of screw <i>24 in.</i></p> <p>No. of blades, <i>4</i> Total surface <i>Not ascertained</i></p> <p>No. of bilge pumps <i>2</i> and sizes <i>6 1/2" x 18"</i></p> <p>Do they pump from each compartment <i>Yes</i></p>	<p>Are all the bilge suction pipes fitted with roses <i>Yes</i></p> <p>No. of feed pumps <i>2</i> and sizes <i>8 1/2" x 13 1/4"</i></p> <p>What gauges are there attached to the engines and boilers ... <i>One press to each boiler, One vacuum, One press in E. hold.</i></p> <p>Description and size of Donkey Pumps ... <i>One double acting, 8" x 12" & 6" x 12"</i></p> <p>Where do they pump from ... <i>Sea, E. Hold, Hotwell, & E. hold, & other holds</i></p> <p>No. of bilge injections <i>One</i> and sizes</p> <p>Are they connected to air, or circulating pumps <i>Circulating</i></p> <p>Is there a hand pump in the engine room</p> <p>Can it be worked by the main engines</p> <p>Is there a deck hose of sufficient length to reach to any part of the vessel</p>
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MAIN BOILERS.

<p>Number <i>Three</i> Description <i>Double-ended, Horizontal</i></p> <p>Made by <i>H. & W. Hawthorn & Co. Ltd.</i></p> <p>When <i>1894</i> At <i>Newcastle</i></p> <p>Working pressure <i>65 lbs</i></p> <p>Tested by hydraulic pressure to , Date</p> <p>Description of super-heating apparatus <i>Longitudinal steam receiver, part in uptake</i></p> <p>Can each boiler be worked separately <i>Yes</i></p>	<p>Can the super-heater be shut off and the boilers worked separately</p> <p>Description and area of safety valves on each boiler ... <i>Two lever weighted 25.8 lbs</i></p> <p>No. of square feet of fire-grate surface in each boiler <i>85 sq. ft.</i></p> <p>Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin <i>Yes</i></p> <p>Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times. <i>Yes</i></p>
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DONKEY BOILER.

<p>Description <i>Vertical</i></p> <p>Where fixed <i>In stokehole</i></p> <p>Working pressure <i>30 lbs</i></p>	<p>Tested by hydraulic pressure to , Date</p> <p>Description and area of safety valves <i>One dead weight, 7 lbs</i></p> <p>No. of square feet of fire grate</p>
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PIPES, COCKS, AND CONNECTIONS.

<p>Are all connections with the sea direct on the skin of the ship <i>Yes</i></p> <p>Are they Kingston valves or common cocks ... <i>All Kingston valves that ash cocks</i></p> <p>Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... <i>Ash cocks below rest on turn of bilge</i></p> <p>Are the discharge pipes above or below the deep water line <i>Yes</i></p> <p>Are they each fitted with a discharge valve on the plating of the vessel <i>Yes</i></p>	<p>What pipes are carried through the bunkers <i>None</i></p> <p>How are they protected</p> <p>When were the stern tube, propeller, screw shaft, and all connections examined in dry dock <i>Jan'y 1899</i></p> <p>Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge <i>Yes</i></p> <p>Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead <i>Fitted with water tight door</i></p>
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Manufacturer.

Singapore

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 *"St. Osyth"* owned by *Watts, Milburn & Co. Ltd.* of the Port of *London* of *3541* Tons Register, and *450* Registered Horse Power, and that they have been carefully inspected and examined by me at *London* and found to be at this date, viz., *Jan'y 22nd 1899* in good order and safe working condition.

Amount of Fee for Survey ... *£5.50*
(Travelling Expenses, if any, £ *See attached Report*)

Alfred H. Alchin.
Engineer Surveyor to Lloyd's Register of Shipping.