

SHIP'S NAME

*L. J. Thetis**Iron 24390*

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rev 4/9/79

Description *Inverted direct acting, Compounded* Are all the bilge suction pipes fitted with roses *yes*
Made by *W Hawthorn & Co* in Decr 1871 No. of feed pumps *2* and sizes *3 1/4 x 1 1/4*
When *April* 1866 At *Newcastle* What gauges are there attached to the engines and boilers ... *1 Steam 1 Case in Engine room 1 Steam 1 Water in S' H*
Diameter of cylinder *5' 10 1/2"* Length of stroke *2' 8"*
No. of revolutions per minute *62*
Point of cut off *half stroke*
Diameter of screw shaft *6 3/4"*
Diameter of crank shaft journals *6 3/4"*
Diameter of screw, ~~or of paddle wheel~~ *10 ft 6 in*
Pitch of screw *14 ft*
No. of blades, *4* Total surface *40 sq feet*
No. of bilge pumps *2* and sizes *3 1/4 x 1 1/4*
Do they pump from each compartment *yes*

Description and size of Donkey Pumps ... *One 4" x 8" double acting*
Where do they pump from ... *Sea, Tanks & bilges*
No. of bilge injections *1* and sizes *4"*
Are they connected to air, or circulating pumps *yes*
Is there a hand pump in the engine room *no*
Can it be worked by the main engines *yes*
Is there a deck hose of sufficient length to reach to any part of the vessel *yes*

MAIN BOILERS.

Number *One* Description *Cylindrical tubular* Can the super-heater be shut off and the boilers worked separately *no*
Made by *J. J. L. L. L. L.* Description and area of safety valves on each boiler *5 1/2" dia. Lever & weight = 24.8 lb in each*
When *July* 1879 At *South Shields* No. of square feet of fire-grate surface in each boiler *50 sq ft*
Working pressure *70 lb* Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin *yes*
Tested by hydraulic pressure to *140 lb*, Date *20.6.79* Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times. *yes*
Description of super-heating apparatus *none*
Can each boiler be worked separately *one boiler*

DONKEY BOILER.

Description *Upright Cylindrical* Tested by hydraulic pressure to _____, Date _____
Where fixed *Hold* Description and area of safety valves *dead weight, adjusted*
Working pressure *35 lb* No. of square feet of fire grate *12 ft* *Satisfactorily*

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*
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 *below*
Are they each fitted with a discharge valve on the plating of the vessel *yes*
What pipes are carried through the bunkers *discharge from donkey*
How are they protected *Iron plates*
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *July 1879*
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*

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 *Thetis* owned by *Messrs J. & J. Nait.*
of the Port of *North Shields* of *532* Tons Register, and *98* Registered Horse Power,
and that they have been carefully inspected and examined by me at *South Shields*
and found to be at this date, viz., *4 Aug 1879* in good order and safe working condition.

Amount of Fee for Survey ... £ _____

(Travelling Expenses, if any, £ _____)

Engineer Surveyor to Lloyd's Register of Shipping.

John Brockat
North Shields