

18651 Iron

(472)

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rev. 18/6/79

Port *Glasgow* No. *4470*
port (if any) on Hull of Vessel.

Description *Compound Reverted Direct acting*
 Made by *Messrs James & George Thomson*
 When *1877* At *Glasgow*
 Diameter of cylinder *18" 4/32"* Length of stroke *24"*
 No. of revolutions per minute *about 100*
 Point of cut off _____
 Diameter of screw shaft *6 1/4"*
 Diameter of crank shaft journals *6 1/2"*
 Diameter of screw, *on or paddle wheel* *4ft*
 Pitch of screw *13ft*
 No. of blades *four* Total surface *15ft*
 No. of bilge pumps *One* and sizes *3 3/4" x 12" Stroke*
 Do they pump from each compartment *Yes*

Are all the bilge suction pipes fitted with roses *Yes*
 No. of feed pumps *One* and sizes *3 1/2" x 12" Stroke*
 What gauges are there attached to the engines and boilers ... *One Steam One Pressure One Compound*
 Description and size of Donkey Pumps ... *Double acting 3 1/2" x 8" Stroke*
 Where do they pump from ... *from the sea pipes*
 No. of bilge injections *none* and sizes _____
 Are they connected to air, or circulating pumps _____
 Is there a hand pump in the engine room *Donkey worked by hand*
 Can it be worked by the main engines *hand*
 Is there a deck hose of sufficient length to reach to any part of the vessel *Yes*

MAIN BOILERS.

Number *One* Description *Round Horizontal*
 Made by *James & George Thomson*
 When *1877* At *Glasgow*
 Working pressure *70 lbs*
 Tested by hydraulic pressure to *160 lbs*, Date *Mar 31st 1877*
 Description of super-heating apparatus *None*
 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 Direct Spring, each 8oz area*
 No. of square feet of fire-grate surface in each boiler *30ft²*
 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 *No Donkey Boiler*
 Where fixed _____
 Working pressure _____

Tested by hydraulic pressure to _____, Date _____
 Description and area of safety valves _____
 No. of square feet of fire grate _____

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 ... *Screw down 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 *Below*
 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 *On ship's previous being landed*
 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 Sluice, & Sluice door is fitted on bulkhead*

Messrs James & George Thomson Manufacturer.
J. Grant

I hereby certify that the whole of the above are correct particulars of the Machinery and Boilers of the Iron (or ~~Steel~~) Screw (or ~~Paddle~~) Steam Vessel *Elspeth* owned by *John Campbell Esq* of the Port of *Glasgow* of *49^{1/100}* Tons Register, and *50* Registered Horse Power, and that they have been carefully inspected and examined by me at *Glasgow & Salween* and found to be at this date, viz., *June 4th 1877* in good order and safe working condition.

Amount of Fee for Survey ... £ *2.10.0* paid
 (Travelling Expenses, if any, £ *10/6*)

James Morrison
 Engineer Surveyor to Lloyd's Register of Shipping.