

19113 Iron
LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 25/8/77

Report (if any) on Hull of Vessel. Port Dundee. No. 4086.

Description ^{x Cyls} *Inverted Compound Surface Condensers*
 Made by *Messrs Kemp & Hume*
 When *Augt 18 77* At *Glasgow*
 Diameter of cylinders *18" x 30"* Length of stroke *22"*
 No. of revolutions per minute *85*
 Point of cut off *about 2/6*
 Diameter of screw shaft *5 3/4"*
 Diameter of crank shaft journals *6"*
 Diameter of screw, ~~or of paddle wheel~~ *9" 0"*
 Pitch of screw *12" 0"*
 No. of blades, *Four* Total surface *21.75 feet*
 No. of bilge pumps *one* and sizes *2 3/4" Dia 13" Stroke*
 Do they pump from each compartment *Main hold and Engine room bilge*

Are all the bilge suction pipes fitted with roses *Yes*
 No. of feed pumps *one* and sizes *2 3/4" Dia 13" Stroke*
 What gauges are there attached to the engines and boilers ... *one water and two sets of least cocks on boiler one steam pressure in stoke hold and one each pressure & vacuum engine room*
 Description and size of Donkey Pumps ... *one vertical Dk in engine room 6" Dia Cyl & 6" Stroke 3" Dia Dk pump from sea, to & from ballast tanks and from engine room bilge to boiler through ship side and on deck*
 No. of bilge injections *one* and sizes *2" Bore*
 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 *one* Description *Circular Tubular*
 Made by *Messrs Black & Noble*
 When *Augt 18 77* At *Montrose*
 Working pressure *65 lbs*
 Tested by hydraulic pressure to *130 lbs*, Date *27/6/77*
 Description of super-heating apparatus *Vertical Domb*
 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 load 3 1/2" Dia 19.24 sq inch area*
 No. of square feet of fire-grate surface in each boiler *25 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 *Vertical round*
 Where fixed *Stoke hold*
 Working pressure *50 lbs*

Tested by hydraulic pressure to *100 lbs*, Date *27/6/77*
 Description and area of safety valves *one Lever height 3.14 area*
 No. of square feet of fire grate *7 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 ... *cocks & valves*
 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 but bulkhead water tight*

Kemp & Hume Manufacturer.

Black & Noble

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 "*Emile Eloise*" owned by *E. Buisine* of the Port of *Gravelines* of *232.76* Tons Register, and *45* Registered Horse Power, and that they have been carefully inspected and examined by me at *Montrose* and found to be at this date, viz., *20th August* 1877 in good order and safe working condition.

Amount of Fee for Survey ... £ *2:5:0*

(Travelling Expenses, if any, £ *1-13-0*)

Reasonal expenses *2-5-0* Rec^d & handed over to *Mr. Sturrock. 21.8.77.*
 £ *3-18-0*

John Sturrock
 Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register
 Foundation