

18489 Iron

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 28/5/77

Description *2 Cylinders mounted S.C.*
Made by *Palmer & Co. Limited*
When *18* At *Newcastle*
Diameter of cylinder *38"* Length of stroke *30"*
No. of revolutions per minute *65*
Point of cut off *5 1/2" to 15" by expansion valve*
Diameter of screw shaft *8 1/4"*
Diameter of crank shaft journals *8"*
Diameter of screw, or of paddle wheel *10' 10"*
Pitch of screw *16' 0" to 16' 6"*
No. of blades, *(14)* Total surface *40 sq feet*
No. of bilge pumps *(12)* and sizes *4" dia. 14" stroke*
Do they pump from each compartment *Engine Room only*

Are all the bilge suction pipes fitted with roses *Yes*
No. of feed pumps *(12)* and sizes *4" dia. 18" stroke*
What gauges are there attached to the engines and boilers ... *(1) Steam on Bilge Engine Room (1) on the Strokehold (1) vacuum*
Description and size of Donkey Pumps ... *No 1 D.A. = 8" dia 12" stroke " 2 D.A. = 4" dia 8" stroke*
Where do they pump from ... *(1) Stroke & Engine room Bilge (2) " "*
No. of bilge injections *(1)* and sizes *4" internal dia*
Are they connected to air, or circulating pumps *circulating*
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 *(1)* Description *Cylindrical tubular*
Made by *Palmer & Co. Limited*
When *1876* At *Newcastle*
Working pressure *35 lbs per sq inch*
Tested by hydraulic pressure to *40 lbs*, Date *Oct 25-76*
Description of super-heating apparatus *None*
Can each boiler be worked separately *one Boiler*

Can the super-heater be shut off and the boilers worked separately *No Superheater*
Description and area of safety valves on each boiler ... *Two Adams Spring Safety Valves each 4" dia = 25 sq. in area*
No. of square feet of fire-grate surface in each boiler *55 sq. 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 13/ cross tubes*
Where fixed *Upper Deck*
Working pressure *38 lbs per sq. inch*

Tested by hydraulic pressure to *80 lbs*, Date *April-77*
Description and area of safety valves *one on lower & high = 2.5 sq. inches one on deck & high = 3.1 sq. inches*
No. of square feet of fire grate *8 square 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 ... *(12) Stop Valves rest. one 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 *Main & Engine bilge pump discharge below deep water*
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 *None*
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *April 1877*
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*

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 *"Hastings"* owned by *Messrs Dixon Harris & Co.* of the Port of *London* of *443* Tons Register, and *90* Registered Horse Power, and that they have been carefully inspected and examined by me at *Sanow on Tyne* and found to be at this date, viz., *April 27th* 1877 in good order and safe working condition.

Amount of Fee for Survey ... £
(Travelling Expenses, if any, £)

George W. Mansel
Engineer Surveyor to Lloyd's Register of Shipping.