

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Description *Compound Inverted*
 Made by *Seward & Co*
 When 18 *77* At *London*
 Diameter of cylinder *24" x 46"* Length of stroke *26"*
 No. of revolutions per minute *68*
 Point of cut off *High 19 inches*
Low 18 inches
 Diameter of screw shaft *7 1/4*
 Diameter of crank shaft journals *7 3/4*
 Diameter of screw, or of paddle wheel *11.6*
 Pitch of screw *15.6*
 No. of blades, *3* Total surface *—*
 No. of bilge pumps *1* and sizes *5" x 14*
 Do they pump from each compartment *yes*

Are all the bilge suction pipes fitted with roses *yes*
 No. of feed pumps *2* and sizes *3" x 14*
 What gauges are there attached to the engines and boilers ... *1 Steam on Boiler*
1 vac 11 Steam on Engines
 Description and size of Donkey Pumps ... *Inverted Single Acting*
4" dia 10" stroke
 Where do they pump from ... *Bilges, Sea, and*
Holds.
 No. of bilge injections *1* and sizes *1 1/2*
 Are they connected to air, or circulating pumps *Circulating*
 Is there a hand pump in the engine room *Deck pump.*
 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 *Cylindrical.*
 Made by *Seward & Co*
 When 18 *77* At *London*
 Working pressure *60 lbs.*
 Tested by hydraulic pressure to *130 lbs.* Date *Oct 14/76*
 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 ... *2 Adams' valve 4" dia*
25.12 area
 No. of square feet of fire-grate surface in each boiler *57 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 with Cross tubes*
 Where fixed *On Deck*
 Working pressure *60 lbs*

Tested by hydraulic pressure to *130 lbs.* Date *Oct 14/76*
 Description and area of safety valves *1 Revolver weight 7.06*
18W 3.14 sq"
 No. of square feet of fire grate *9.62 sq ft*

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *Except one which is fitted on a strong W.I. Island pipe.*
 Are they Kingston valves or common cocks ... *Com. Cocks*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *All but Boiler Blow off*
 Are discharge pipes above or below the deep water line *Main below others above*
 Are they fitted with a discharge in 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 *At this time*
 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)

Steam Vessel *Greatham Hall* owned by *Tatham & Co*
London of *457* Tons Register, and *957* Registered Horse Power,

has been carefully inspected and examined by me at *London*
 on this date, viz., *January 5th* 18 *77* in good order and safe working condition.

... £4 : 15 : 0
 James Milton
 Engineer Surveyor to Lloyd's Register of Shipping.
London