

Mar 13/78

20404 Ton

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 29/4/78

No. 13881
Iron Newcastle

Description *Vertical Compound*
 Made by *Maudslayi Sons & Field*
 When *1871* At *London*
 Diameter of cylinders *29 & 56* Length of stroke *33*
 No. of revolutions per minute *62*
 Point of cut off *1/2 & 3/8*
 Diameter of screw shaft *9 1/4"*
 Diameter of crank shaft journals *9 1/4"*
 Diameter of screw, or of paddle wheel *13.6"*
 Pitch of screw *14.6"*
 No. of blades, *4* Total surface *52 sq ft*
 No. of bilge pumps *2* and sizes *5" x 9"*
 Do they pump from each compartment *yes*

Are all the bilge suction pipes fitted with roses *yes*
 No. of feed pumps *2* and sizes *5" x 9"*
 What gauges are there attached to the engines and boilers ... } *1 Steam & 1 Case in Engine Room*
 } *2 Steam in Stow-hole*
 Description and size of Donkey Pumps ... } *2 off 4" & 6" dia x —*
 Where do they pump from ... } *Sea, Tanks, aft well,*
 } *Engine Room, Centre & wing*
 No. of bilge injections *1* and sizes *4 1/2"*
 Are they connected to air, or circulating pumps *air*
 Is there a hand pump in the engine room *no*
 Can it be worked by the main engines *—*
 Is there a deck hose of sufficient length to reach to any part of the vessel } *yes*

MAIN BOILERS.

Number *Two* Description *Cylindrical*
 Made by *Maudslayi Sons & Field*
 When *1871* At *London*
 Working pressure *60 lbs*
 Tested by hydraulic pressure to *130 lbs* Date *Nov 71*
 Description of super-heating apparatus } *none*
 Can each boiler be worked separately *yes*

Can the super-heater be shut off and the boilers worked separately } *no Superheater*
 Description and area of safety valves on each boiler ... } *one dead weight, and one lever valves 4 1/2" diam*
 No. of square feet of fire-grate surface in each boiler } *60 sq ft*
 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 Cylindrical*
 Where fixed *Stow-hole*
 Working pressure *42 lbs*

Tested by hydraulic pressure to *not ascertained*
 Description and area of safety valves *1 valve 3" dia = 7 area*
 No. of square feet of fire grate *14 sq ft* { *lever & weight*

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 ... } *Kingston*
 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 } *19th March 1878*
 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 *Trafalgar* owned by *Nelson Donkin & Co* of the Port of *London* of *973* Tons Register, and *120* Registered Horse Power, and that they have been carefully inspected and examined by me at *Newcastle* and found to be at this date, viz., *March 23rd 1878* in good order and safe working condition.

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

John Brockat
 Engineer Surveyor to Lloyd's Register of Shipping.
North Shields