

19909 *5m*

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 27/12/97

Report (if any) on H.M.S. *1357* Port *Greenock* No. *359*

Description *Compound Inverted Direct Acting*
 Made by *Muir & Blackmore*
 When *18 47* At *Greenock*
 Diameter of cylinder *24" x 46"* Length of stroke *26"*
 No. of revolutions per minute *98*
 Point of cut off *2/3 of stroke*
 Diameter of screw shaft *4 1/2"*
 Diameter of crank shaft journals *4 1/2"*
 Diameter of screw, ~~or of paddle wheel~~ *9.6"*
 Pitch of screw *15 1/2"*
 No. of blades, *Four* Total surface *not ascertained*
 No. of bilge pumps *Two* and sizes *3" dia x 15" stroke*
 Do they pump from each compartment *Yes*

Are all the bilge suction pipes fitted with roses *Yes*
 No. of feed pumps *Two* and sizes *3" dia 15" stroke*
 What gauges are there attached to the engines and boilers ... *Two Steam, One Vacuum + Compound (Combined)*
 Description and size of Donkey Pumps ... *Double acting 8" dia 4 1/2" x 9" pump*
 Where do they pump from ... *From the Sea & Bilge*
 No. of bilge injections *One* and sizes *2 1/2"*
 Are they connected to air, or circulating pumps *By Circulating*
 Is there a hand pump in the engine room *Yes*
 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 *Two* Description *Round Horizontal*
 Made by *Muir & Blackmore*
 When *18 47* At *Greenock*
 Working pressure *70 lbs*
 Tested by hydraulic pressure to *140 lbs*, Date *Oct 27/97*
 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 *Yes*
 Description and area of safety valves on each boiler ... *Two Direct Spring each 9.6" area*
 No. of square feet of fire-grate surface in each boiler *32 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 *Round Vertical*
 Where fixed *In Store hold*
 Working pressure *45 lbs*

Tested by hydraulic pressure to *100 lbs*, Date *Oct 31/97*
 Description and area of safety valves *One Direct Spring 9" area*
 No. of square feet of fire grate *9 sq ft*

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 Valve Cocks*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *All fitted on board bilge except donkey cock, which is fitted as high as possible for donkey barrel seal near load line*
 Are the discharge pipes above or below the deep water line *Yes*
 Are they each fitted with a discharge valve on the plating of the vessel *Yes*
 Manufacturer *Muir & Blackmore*

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 *Dec 15th 18 47*
 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 Lummel after compartment is checked over & water tight a sluice door is fitted on bulkhead*

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 *"Alert"* owned by *James Mollison* attended to of the Port of *Greenock* of *116* Tons Register, and *90* *Thomas J. Parker & Others* Registered Horse Power, and that they have been carefully inspected and examined by me at *Greenock & Glasgow* and found to be at this date, viz., *Dec 15th 18 47* in good order and safe working condition.

Amount of Fee for Survey ... £ *4:10:-*
 (Travelling Expenses, if any, £ ...)

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

