

SHIP'S NAME *T.S.S. "James Hall"*

24960 Iron

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 15/11/79

Description *Compound Int. Cyl. Surface Condensing*
 Made by *Messrs Hall Russell & Co*
 When *April* 1870 At *Aberdeen*
 Diameter of cylinder *23 1/2 + 42* Length of stroke *30"*
 No. of revolutions per minute *70*
 Point of cut off *about 5/8ths of stroke*
 Diameter of screw shaft *8" inches*
 Diameter of crank shaft journals *9"*
 Diameter of screw, or of paddle wheel *11 1/2"*
 Pitch of screw *14 1/2"*
 No. of blades, *4* Total surface *✓*
 No. of bilge pumps *one* and sizes *5 1/2" dia 15" stroke*
 Do they pump from each compartment *yes*

Are all the bilge suction pipes fitted with roses *yes*
 No. of feed pumps *one* and sizes *5 1/2" dia 15" stroke*
 What gauges are there attached to the engines and boilers ... *one water on boiler, one pressure in stoke hold, one each pressure and vacuum on engines*
 Description and size of Donkey Pumps ... *one int. cyl. 7" dia 8" stroke, 3 1/2" pump*
 Where do they pump from ... *from sea bilges to boiler through condenser on deck and ship side*
 No. of bilge injections *one* and sizes *4" dia*
 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 Hall Russell & Co*
 When *Oct* 1879 At *Aberdeen*
 Working pressure *65 lbs*
 Tested by hydraulic pressure to *160 lbs*, Date *7.7.79*
 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 ... *two spring load made by H. Rogers 28.38" area*
 No. of square feet of fire-grate surface in each boiler *50 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 *one Round vertical*
 Where fixed *stoke hold*
 Working pressure *50 lbs*

Tested by hydraulic pressure to *160 lbs*, Date *7.7.79*
 Description and area of safety valves *one spring load 7 inches area*
 No. of square feet of fire grate *8.5 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 and valves*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *yes with the exception of boiler blow off cocks under the plates*
 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 *on slip 7.10.79*
 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*

Hall Russell & Co Manufacturers

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 "*James Hall*" owned by *Aberdeen Newcastle & Hull* of the Port of *Aberdeen* of *221* Tons Register, and *65* Registered Horse Power, and that they have been carefully inspected and examined by me at *Aberdeen* and found to be at this date, viz., *23rd October* 1879 in good order and safe working condition.

Amount of Fee for Survey ... £ *3 : 3 : 0*

(Travelling Expenses, if any, £ *2.14.9*)

See received by me and forwarded to Surgeon General 1879

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

*Hall Russell & Co
makers of the boilers*

IRON 488-0454

Port *Aberdeen*
Report (if any) on Hull of Vessel.

Form No. 8-1000-23/579

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