

15950 *Lr*

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S CERTIFICATE & REPORT.

ENGINES.

Rec 8/3/76

Report (if any) on Hull of Vessel. No. 3386 Port Hartlepool

Description *Inverted Compound Surface Condensing*
 Made by *Messrs Blair & Co. Limited. Stockton.*
 In the year *1876.*
 Present condition *new.*
 Diameter of cylinder *one HP 18 1/2 & one LP 34.*
 Length of stroke *24 inches.*
 No. of revolutions per minute *about 80.*
 Point of cut off *1/2 stroke.*
 Paddle, or Screw *Screw.*
 Nominal Horse Power *45.*
 Diameter of screw, or of paddle wheel *9 ft*
 Pitch of screw *10 feet.*
 No. of blades, *4* total surface *20 sq. ft.*
 No. of bilge pumps *1* and size *3 x 17 stroke.*
 Do they pump from each compartment *yes.*
 Is there provision made for pumping from the wings of the stoke hold *yes.*

Are all the bilge suction pipes fitted with roses *yes.*
 What vacuum and steam gauges are there attached to the engines and boilers *1 vacuum gauge on Condenser, steam gauge on Boiler, in engine room.*
 No. of feed pumps *1* and sizes *3 dia x 17 stroke.*
 Description and size of Donkey Engine... *Inverted Cyl. 8 dia x 8 stroke Pump 5 3/4 x 8 -*
 Will it feed the boilers, pump from the bilges, and pump on deck *yes & from tanks and Condenser.*
 Can it be driven by steam from a separate boiler *yes.*
 No. of bilge injections *1* and sizes *3 dia.*
 Are they fitted with non return valves *yes.*
 Is there a hand pump in the engine room *no (donkey can be used as such)*
 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 *84 ft.*

CONNECTIONS ON HULL.

Are all connections with the sea direct on the skin of the ship *yes.*
 Are they Kingston valves or common cocks *stop valves & 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 *below.*
 Are they each fitted with a discharge valve on the plating of the vessel *yes.*

Are any pipes carried through the bunkers *none.*
 If so state how protected
 When was the stern tube, propeller, screw shaft, and all connections examined in dry dock *Jan'y 1876.*
 How are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *non return valve and shell cocks with only 1 port in side of plug.*
 Have the bilge suction non-return valves fitted or not *not fitted.*

BOILERS.

One.
 Description *Cylindrical & Multitubular.*
 Made by *Messrs Blair & Co.*
 In the year *1876.*
 Present condition *good.*
 When last extensively repaired *new.*
 Working pressure *70 lbs per sq. inch.*
 When tested by hydraulic pressure *December 1876.*
 To what pressure tested *140 lbs per sq. inch.*
 Any super-heating apparatus *none.*
 Describe it
 Can each boiler be worked separately *yes.*
 Is each boiler fitted with a separate steam gauge *yes.*

Can the super-heater be shut off and the boilers worked separately
 No. of safety valves on each boiler *2.*
 Description and area of each safety valve *spring 2 3/4 dia 5.9 area*
 No. of square feet of fire-grate surface in each boiler *20 1/2.*
 Is there a separate blow off and brine cock on each boiler, independent of those on the vessel's skin *yes.*
 Is the screw shaft tunnel water tight and fitted with a sluice door on bulkhead *Water tight Sluice door fitted.*
 Are all pipes, cocks, and roses in connection with these boilers accessible to the engineer at all times *yes.*

Pro Blair & Co. Ltd Manufacturer.
J. W. Blair

I hereby certify that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *"Lady Ailda"* owned by *The Whitley Steam Shipping Co.* of the Port of *Whitley* of *402.38* Tons Register, and *45* Nominal Horse Power, have been carefully inspected and examined by *me* at *Stockton* and found to be at this date, viz., *January 31st* 1876 in good order and safe working condition.

Survey fee £3-3-0
 Certificate *5-0* by *J. W. Blair & Co.*
£3-8-0

William Allison
 Engineer Surveyor to Lloyd's Register of Shipping.