

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S CERTIFICATE, & REPORT.

### ENGINES.

Description *Compound Inverted Direct Acting*  
 Made by *Messrs Kincaid, Donald & Co.*  
 In the year *1875*  
 Present condition *New*  
 Diameter of cylinders *One 26" and the 48"*  
 Length of stroke *33"*  
 No. of revolutions per minute *40*  
 Point of cut off  *$\frac{2}{3}$  of stroke*  
 Paddle, or Screw *Screw*  
 Nominal Horse Power *99*  
 Diameter of screw, or of paddle wheel *12" 8"*  
 Pitch of screw *14" 6"*  
 No. of blades, *4* total surface *Not ascertained*  
 No. of bilge pumps *2* and size *3 1/2" x 19" stroke*  
 Do they pump from each compartment *Yes*  
 Is there provision made for pumping from the wings of the stoke hole *No. No pumped from Engine Room side*

Are all the bilge suction pipes fitted with roses *Yes*  
 What vacuum and steam gauges are there attached to the engines and boilers *one vacuum, one steam and one compound gauge in Engine Room and one to each boiler in stoke hole*  
 No. of feed pumps *2* and sizes *3 1/2" x 16 1/2" stroke*  
 Description and size of Donkey Engine *Horizontal, double acting 4" x 8" stroke*  
 Will it feed the boilers, pump from the bilges, and pump on deck *Yes*  
 Can it be driven by steam from a separate boiler *Yes*  
 No. of bilge injections *One* and sizes *3 1/2" connected to circulating pumps*  
 Are they fitted with non return valves *Yes*  
 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*

### CONNECTIONS ON HULL.

Are all connections with the sea direct on the skin of the ship *Yes*  
 Are they Kingston valves or common cocks *Screw down Valves & Cocks*  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehole plates *Yes they are fitted above turn of Bilge*  
 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*

Are any pipes carried through the bunkers *Yes*  
 If so state how protected *Strong wood casing*  
 When was the stern tube, propellor, screw shaft, and all connections examined in dry dock *On Ship previous to being launched*  
 How are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *Stoke hole & Bilge Suction Cock is open at bottom with single port in side of plug*  
 Have the bilge suctions non-return valves fitted or not *No*

### BOILERS.

Number *Two Round Horizontal with*  
 Description *Two Furnaces in each fired from forward*  
 Made by *Messrs Lyall & Nelson Glasgow*  
 In the year *1875*  
 Present condition *New*  
 When last extensively repaired *—*  
 Working pressure *65 lbs*  
 When tested by Hydraulic pressure *Sept 24th 1875*  
 To what pressure tested *130 lbs*  
 Any super-heating apparatus *No*  
 Describe it *Has one Horizontal Receiver common to both Boilers*  
 Can each boiler be worked separately *Yes*  
 Is each boiler fitted with a separate steam gauge *One to each & one common to both Boilers*

Can the super-heater be shut off and the boilers worked separately *—*  
 No. of safety valves on each boiler *Two*  
 Description and area of each safety valve *Lever with weights 12.56" Area*  
 No. of square feet of fire-grate surface in each boiler *38 ft*  
 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 *Yes*  
 Are all pipes, cocks, and roses in connection with these boilers accessible to the engineer at all times *Yes*

*Kincaid Donald & Co* Manufacturers

I hereby certify that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *"Amelia"* owned by *H. L. Seligman & Son* of the Port of *Glasgow* of *379* Tons Register, and *99* Nominal Horse Power, have been carefully inspected and examined by *me* at *Glasgow and Port Glasgow* and found to be at this date, viz., *Nov. 5th 1875* in good order and safe working condition.

*James Morrison*  
 Engineer Surveyor to Lloyd's Register of Shipping.