

17885 Iron

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Rev 6/8/77

Description *Compound Inverted*  
Made by *Rait & Lindsay*  
When *1873* At *Glasgow*  
Diameter of cylinder *24" x 52"* Length of stroke *36 inches*  
No. of revolutions per minute *62*  
Point of cut off *1/2 HP*  
Diameter of screw shaft *11 inches*  
Diameter of crank shaft journals *11 inches*  
Diameter of screw, or of paddle wheel *12 feet*  
Pitch of screw *21 feet*  
No. of blades, *3* Total surface *34, 41* <sup>square feet</sup>  
No. of bilge pumps *2* and sizes *5 inches*  
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 inches*  
What gauges are there attached to the engines and boilers ... *Back pressure, vacuum and steam gauges, one of each in engine room; one steam gauge for each boiler in stoke hole.*  
Description and size of Donkey Pumps ... *one vertical donkey pump 6 inches dia.*  
Where do they pump from ... *Bilge, sea and from circulating to condenser*  
No. of bilge injections *one* and sizes *2 3/4 inches*  
Are they connected to air, or circulating pumps *to circulating*  
Is there a hand pump in the engine room *one in stoke hole*  
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 *two* Description *Flat sided and half circular tops and bottoms*  
Made by *Rait & Lindsay*  
When *1873* At *Glasgow*  
Working pressure *60 lbs*  
Tested by hydraulic pressure to *130 lbs*, Date *1873*  
*90 lbs* *now*  
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  
Description and area of safety valves on each boiler ... *Spiral Springs 31, 8 square inches*  
No. of square feet of fire-grate surface in each boiler *37 square 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 *Vertical with crop flues and spherical top*  
Where fixed *stoke hole*  
Working pressure *loaded 50 lbs*

Tested by hydraulic pressure to *100 lbs*, Date *1873*  
Description and area of safety valves *2 vertical 9, 8*  
No. of square feet of fire grate *9, 6*

### 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 ... *Main blow off Kingston Common Cocks to Donkey Suction*  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *they are below stoke hole 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 *Main Steam pipe*  
How are they protected *by a wrought iron tube*  
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *Now*  
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 *"Kinghorn"* owned by *D. R. Macgregor* of the Port of *Leith* of *455* Tons Register, and *120* Registered Horse Power, and that they have been carefully inspected and examined by me at *Antwerp* and found to be at this date, viz., *2<sup>d</sup> March* 18 *77* in good order and safe working condition.

Amount of Fee for Survey ... £ *5 : 0 : 0*

(Travelling Expenses, if any, £ *—*)

Engineer Surveyor to Lloyd's Register of Shipping.

*AC*  
*6.3.77*

*WMS*

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