

# REPORT ON MACHINERY.

5529

(Received in London Office 18

No. in Survey held at Glasgow Date, first Survey March 15<sup>th</sup> Last Survey Oct. 6<sup>th</sup> 1881  
 Reg. Book. 5529  
80 on the J. S. Maggie Tons 180.34  
99.61  
 Master H. Anderson Built at Liverpool When built 1870  
 Engines made at Glasgow By whom made Rees & Audouin When made 1876  
 Boilers made at do By whom made do when made 1881  
 Registered Horse Power 25 Owners A. A. Cutler Port belonging to Glasgow

## ENGINES, &c.—

Description of Engines Inverted Compound Surface Condensing  
 Diameter of Cylinders 13" & 25" Length of Stroke 20" No. of Rev. per minute 100 Point of Cut off, High Pressure 1/2 Low Pressure 1/2  
 Diameter of Screw shaft 5 1/4" Diameter of Tunnel shaft 4 3/4" Diameter of Crank shaft journals 4 1/2" Diameter of Crank pin 4 1/2" size of Crank webs 6 x 3"  
 Diameter of screw 6" 9" Pitch of screw 11" 0" No. of blades 4 state whether moveable Yes total surface 38 6 sq. ft.  
 No. of Feed pumps 1 diameter of ditto 2 1/8" Stroke 12" Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 1 diameter of ditto 2 1/8" Stroke 12" Can one be overhauled while the other is at work Yes  
 Where do they pump from Triggs of Engine Room and all Compartments  
 No. of Donkey Engines one Size of Pumps 4" x 4" Where do they pump from Sea. Triggs of Engine Room and all Compartments.  
 Are all the bilge suction pipes fitted with roses Yes Are the roses always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes  
 No. of bilge injections one and sizes 3 1/2" Are they connected to condenser, or to circulating pump Circulating  
 How are the pumps worked By Levers from Crossheads of Forward Engine  
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Stop Valves & Cocks  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the discharge pipes above or below the deep water line Above  
 Are they each fitted with a discharge valve always accessible on the plating of the vessel Yes Are the blow off cocks fitted with a spigot and brass covering plate Yes  
 What pipes are carried through the bunkers Main Hold Suction Pipe How are they protected Wooden Casings  
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times Yes except in Hold.  
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges Yes  
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock —  
 Is the screw shaft tunnel watertight No and fitted with a sluice door — worked from —

## OILERS, &c.—

Number of Boilers one Description Cylindrical & Multitubular  
 Working Pressure 45 lbs Tested by hydraulic pressure to 150 lbs Date of test 20.5.81  
 Description of superheating apparatus or steam chest Vertical none.  
 Can each boiler be worked separately — Can the superheater be shut off and the boiler worked separately No Superheater  
 No. of square feet of fire grate surface in each boiler 19 sq. ft. Description of safety valves Direct Spring (Adams)  
 No. to each boiler 2 area of each valve 4.91 sq. in. Are they fitted with easing gear Yes  
 No. of safety valves to superheater — area of each valve — are they fitted with easing gear —  
 Smallest distance between boilers and bunkers or woodwork 9" 4 inches Coated with Non conducting Composition  
 Diameter of boilers 4" 6" Length of boilers 8" 9" description of riveting of shell long. seams Double Butt circum. seams Single Lap  
 Thickness of shell plates 5/8" diameter of rivet holes 7/8" whether punched or drilled drilled pitch of rivets 4"  
 Lap of plating 9 3/4" per centage of strength of longitudinal joint Plate 78% Riv 75% working pressure of shell by rules 86 lbs  
 Size of manholes in shell 15" x 11 1/2" size of compensating rings 6" x 9 1/16"  
 No. of Furnaces in each boiler 2 outside diameter 2' 4" length, top 5' 3" bottom 8' 0"  
 Thickness of plates 7/16" description of joint Double Butt if rings are fitted 3' x 3' x 1/2" greatest length between rings 5' 3"  
 Working pressure of furnace by the rules 114 lbs  
 Combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"  
 Pitch of stays to ditto sides 7 1/2" x 7 1/2" back 7 1/2" x 7 1/2" top 7 1/2" x 7 1/2"  
 If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 96 lbs  
 Diameter of stays at smallest part 1 1/8" working pressure of ditto by rules 106 lbs  
 End plates in steam space, thickness 9/16" 7/16" double plate on ends pitch of stays to ditto 15" x 17" how stays are secured Nuts  
 Working pressure by rules 80" diameter of stays at smallest part 2 1/8" working pressure by rules 83 lbs  
 Front plates at bottom, thickness 9/16" Back plates, thickness 9/16" greatest pitch of stays 12 1/2" x 7 1/2" working pressure by rules 62 lbs  
Plates stiffened by a V. Iron. 5" x 3" x 1/2"

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Diameter of tubes  $3\frac{1}{2}$ " pitch of tubes  $4\frac{1}{4} \times 4\frac{1}{4}$ " thickness of tube plates, front  $\frac{1}{16}$ " back  $\frac{5}{8}$ "  
 How stayed Sub Stay pitch of stays  $13\frac{3}{8} \times 9\frac{1}{2}$ " width of water spaces  $1\frac{1}{4} + 1\frac{1}{8}$ "  
 Diameter of Superheater or Steam chest  $2' 3"$  length  $3' 6"$   
 Thickness of plates  $\frac{1}{16}$ " description of longitudinal joint Milded diameter of rivet holes --- pitch of rivets ---  
 Working pressure of shell by rules 150 lb Diameter of flue --- thickness of plates ---  
 If stiffened with rings --- distance between rings --- Working pressure by rules ---  
 End plates of superheater, or steam chest; thickness  $\frac{1}{2}$ " How stayed 2 round stay 1 1/2" dia  
 Superheater or steam chest; how connected to boiler Flange & stay.

**DONKEY BOILER—**

Description ---  
 Made at --- By whom made --- when made ---  
 Where fixed --- working pressure --- Tested by hydraulic pressure to --- No. of Certificate ---  
 Fire grate area --- Description of safety valves --- No. of safety valves --- area of each ---  
 If fitted with easing gear --- If steam from main boilers can enter the donkey boiler ---  
 Diameter of donkey boiler --- length --- description of riveting ---  
 thickness of shell plates --- diameter of rivet holes --- whether punched or drilled ---  
 pitch of rivets --- lap of plating --- per centage of strength of joint ---  
 thickness of crown plates --- stayed by ---  
 Diameter of furnace, top --- bottom --- length of furnace ---  
 thickness of plates --- description of joint ---  
 thickness of furnace crown plates --- stayed by ---  
 Working pressure of shell by rules --- working pressure of furnace by rules ---  
 diameter of uptake --- thickness of plates --- thickness of water tubes ---

*This submittal has been made  
 in compliance to have the notification  
 Lloyd's Reg. No. 10.81 and NB 81/10/87*

The foregoing is a correct description,  
 Lee Anderson & Co. - J. Nicoll Manufacturer.

**General Remarks** (State quality of workmanship, opinions as to class, &c.)

A new main Miller supplied and fitted on board.  
 Cylinders examined and found in good order.  
 Piston Rods trued up. New pistons and neck rings fitted  
 and glands rebushed.  
 Slide valves with their rods and connections overhauled  
 and put in good order.  
 Surface Condenser examined all defective tubes removed  
 Air Circulating, Sed. and Midge pumps overhauled  
 and put in good order.  
 Crank shaft examined and found in good order  
 Propeller shaft drawn and found in good order  
 the outer wash lined up.  
 Sew coxles removed from flat of ships bottom to  
 upper part of bilge.  
 Machinery tried under steam and found satisfactory.

The above machinery is now in good order and safe working condition  
 and in my opinion eligible for the Notification Lloyd's M.C. 10. 81

The amount of Entry Fee £ : 10 : received by me,  
 Special £ 5 : 5 :  
 Certificate (if required) £ : 2.6 27/10/87  
 To be sent as per margin.  
 (Travelling Expenses, if any, £ )

*J.M. Egan*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

1/11/87 18  
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