

# REPORT ON MACHINERY.

7435

No. 4435

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No. in Survey held at Glasgow Date, first Survey \_\_\_\_\_ and Last Survey 27<sup>th</sup> April 1886

Reg. Book. \_\_\_\_\_ on the Donkey Boiler of the Ship Marion Inglis (Number of Visits \_\_\_\_\_) Tons 1548

Master \_\_\_\_\_ Built at Dumbarton By whom built A. McMillan & Son When built 1886

Engines made at \_\_\_\_\_ By whom made \_\_\_\_\_ when made \_\_\_\_\_

Boilers made at \_\_\_\_\_ By whom made \_\_\_\_\_ when made \_\_\_\_\_

Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

## ENGINES, &c.—

Description of Engines \_\_\_\_\_

Diameter of Cylinders \_\_\_\_\_ Length of Stroke \_\_\_\_\_ No. of Rev. per minute \_\_\_\_\_ Point of Cut off, High Pressure \_\_\_\_\_ Low Pressure \_\_\_\_\_

Diameter of Screw shaft \_\_\_\_\_ Diam. of Tunnel shaft \_\_\_\_\_ Diam. of Crank shaft journals \_\_\_\_\_ Diam. of Crank pin \_\_\_\_\_ size of Crank webs \_\_\_\_\_

Diameter of screw \_\_\_\_\_ Pitch of screw \_\_\_\_\_ No. of blades \_\_\_\_\_ state whether moveable \_\_\_\_\_ total surface \_\_\_\_\_

No. of Feed pumps \_\_\_\_\_ diameter of ditto \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_

No. of Bilge pumps \_\_\_\_\_ diameter of ditto \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_

Where do they pump from \_\_\_\_\_

No. of Donkey Engines \_\_\_\_\_ Size of Pumps \_\_\_\_\_ Where do they pump from \_\_\_\_\_

Are all the bilge suction pipes fitted with roses \_\_\_\_\_ Are the roses always accessible \_\_\_\_\_ Are the sluices on Engine room bulkheads always accessible \_\_\_\_\_

No. of bilge injections \_\_\_\_\_ and sizes \_\_\_\_\_ Are they connected to condenser, or to circulating pump \_\_\_\_\_

How are the pumps worked \_\_\_\_\_

Are all connections with the sea direct on the skin of the ship \_\_\_\_\_ Are they Valves or Cocks \_\_\_\_\_

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates \_\_\_\_\_ Are the discharge pipes above or below the deep water line \_\_\_\_\_

Are they each fitted with a discharge valve always accessible on the plating of the vessel \_\_\_\_\_ Are the blow off cocks fitted with a spigot and brass covering plate \_\_\_\_\_

What pipes are carried through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times \_\_\_\_\_

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges \_\_\_\_\_

When were stern tube, propeller, screw shaft, and all connections examined in dry dock \_\_\_\_\_

Is the screw shaft tunnel watertight \_\_\_\_\_ and fitted with a sluice door \_\_\_\_\_ worked from \_\_\_\_\_

## BOILERS, &c.—

Number of Boilers \_\_\_\_\_ Description \_\_\_\_\_ Whether Steel or Iron \_\_\_\_\_

Working Pressure \_\_\_\_\_ Tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_

Description of superheating apparatus or steam chest \_\_\_\_\_

Can each boiler be worked separately \_\_\_\_\_ Can the superheater be shut off and the boiler worked separately \_\_\_\_\_

No. of square feet of fire grate surface in each boiler \_\_\_\_\_ Description of safety valves \_\_\_\_\_ No. to each boiler \_\_\_\_\_

Area of each valve \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_ No. of safety valves to superheater \_\_\_\_\_ area of each valve \_\_\_\_\_

Are they fitted with easing gear \_\_\_\_\_ Smallest distance between boilers and bunkers or woodwork \_\_\_\_\_ Diameter of boilers \_\_\_\_\_

Length of boilers \_\_\_\_\_ description of riveting of shell long. seams \_\_\_\_\_ circum. seams \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_

Diameter of rivet holes \_\_\_\_\_ whether punched or drilled \_\_\_\_\_ pitch of rivets \_\_\_\_\_ Lap of plating \_\_\_\_\_

Per centage of strength of longitudinal joint \_\_\_\_\_ working pressure of shell by rules \_\_\_\_\_ size of manholes in shell \_\_\_\_\_

Size of compensating rings \_\_\_\_\_ No. of Furnaces in each boiler \_\_\_\_\_

Outside diameter \_\_\_\_\_ length, top \_\_\_\_\_ bottom \_\_\_\_\_ thickness of plates \_\_\_\_\_ description of joint \_\_\_\_\_ if rings are fitted \_\_\_\_\_

Greatest length between rings \_\_\_\_\_ working pressure of furnace by the rules \_\_\_\_\_ combustion chamber plating, thickness, sides \_\_\_\_\_ back \_\_\_\_\_ top \_\_\_\_\_

Pitch of stays to ditto, sides \_\_\_\_\_ back \_\_\_\_\_ top \_\_\_\_\_ If stays are fitted with nuts or riveted heads \_\_\_\_\_ working pressure of plating by rules \_\_\_\_\_ Diameter of stays at smallest part \_\_\_\_\_ working pressure of ditto by rules \_\_\_\_\_ end plates in steam space, thickness \_\_\_\_\_

Pitch of stays to ditto \_\_\_\_\_ how stays are secured \_\_\_\_\_ working pressure by rules \_\_\_\_\_ diameter of stays at smallest part \_\_\_\_\_ working pressure by rules \_\_\_\_\_ Front plates at bottom, thickness \_\_\_\_\_ Back plates, thickness \_\_\_\_\_

Greatest pitch of stays \_\_\_\_\_ working pressure by rules \_\_\_\_\_ Diameter of tubes \_\_\_\_\_ pitch of tubes \_\_\_\_\_ thickness of tube \_\_\_\_\_ plates, front \_\_\_\_\_ back \_\_\_\_\_ how stayed \_\_\_\_\_ pitch of stays \_\_\_\_\_ width of water spaces \_\_\_\_\_

Diameter of Superheater or Steam chest \_\_\_\_\_ length \_\_\_\_\_ thickness of plates \_\_\_\_\_ description of longitudinal joint \_\_\_\_\_ diam. of rivet holes \_\_\_\_\_

Pitch of rivets \_\_\_\_\_ working pressure of shell by rules \_\_\_\_\_ 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 \_\_\_\_\_ how stayed \_\_\_\_\_ Superheater or steam chest; how connected to boiler \_\_\_\_\_

Form No. 2000-1886



7435 G.S.  
**Barque "Marion" Inglis"**

**DONKEY BOILER**— Description *Cylindrical Vertical 3 Horizontal Water Tubes*  
 Made at *Stockton* by whom made *Hiley Bros* when made *4.1.86* where fixed *on Deck*  
 Working pressure *60 lbs* tested by hydraulic pressure to *120 lbs* No. of Certificate *1318* fire grate area *10 feet* description of safety  
 valves *Direct Spring* No. of safety valves *one* area of each *4"* if fitted with easing gear *Yes* if steam from main boilers can  
 enter the donkey boiler \_\_\_\_\_ diameter of donkey boiler *4' 0"* length *10' 0"* description of riveting *single riveted lap*  
 Thickness of shell plates *5/16"* diameter of rivet holes *11/16"* whether punched or drilled *punched* *Annealed* pitch of rivets *1 3/4"* lap of plating *2 1/4"*  
 per centage of strength of joint *63* thickness of crown plates *3/8* stayed by *4 Vertical stays 1 1/2" dia & uptake*  
 Diameter of furnace, top *3' 4"* bottom *3' 5 3/8"* length of furnace *4' 1"* thickness of plates *3/8"* description of joint *single row lap*  
 Thickness of furnace crown plates *3/8"* stayed by *4 Vertical stays 1 1/2" dia & uptake* working pressure of shell by rules *81 lbs*  
 Working pressure of furnace by rules *43 lbs* diameter of uptake *9 3/4"* thickness of plates *3/8"* thickness of water tubes *5/16"*

**SPARE GEAR.** State the articles supplied:— *Above particulars received from Mr. J. E. Stoddart under whose survey the boiler has been made. It is now fitted on board the Ship, has been tried under steam & the Safety Valve set to the working pressure of boiler, and found to be in good working condition.*  
 The foregoing is a correct description, *Condition.*  
 Manufacturer. *James Morrison Clyde District*

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

It is submitted that this vessel is eligible to remain as classed  
 R 10/5/86

The amount of Entry Fee .. £	:	:	received by me,
Special .. .. . £	:	:	}
Donkey Boiler Fee .. .. £	:	:	
Certificate (if required) .. £	:	:	
To be sent as per margin.			
(Travelling Expenses, if any, £ .. .. .)			18

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUESDAY 11 MAY 1886

