

# REPORT ON MACHINERY.

FRIDAY 27 JULY 1883

No. 6192

Received at London Office

No. in Survey held at Arg & Puffin Date, first Survey 24<sup>th</sup> Oct. 1882 Last Survey 19<sup>th</sup> July 1883  
 Reg. Book. (Number of Visits 22) 338  
 on the S S Methuener Tons 148  
 Master Clark Built at Parley By whom built F. Martin & Co. When built 1883  
 Engines made at Arg By whom made J & J Young when made 1883  
 Boilers made at Arg By whom made " when made 1883  
 Registered Horse Power 10 Owners James Hoyle & Son Port belonging to Glasgow

**PLANS CASE**

## ENGINES, &c.—

Description of Engines Compound Inverted Direct Acting  
 Diameter of Cylinders 19" & 36" Length of Stroke 27" No. of Rev. per minute 90 Point of Cut off, High Pressure 17" Low Pressure 17"  
 Diameter of Screw shaft 7" Diam. of <sup>Intermediate</sup> Turret shaft 6 3/4" Diam. of Crank shaft journals 7" Diam. of Crank pin 7" size of Crank webs 8" x 4"  
 Diameter of screw 9.6" Pitch of screw 14 feet No. of blades 3 state whether moveable yes total surface 23.75  
 No. of Feed pumps one diameter of ditto 2" Stroke 27" Can one be overhauled while the other is at work —  
 No. of Bilge pumps one diameter of ditto 2" Stroke 27" Can one be overhauled while the other is at work —  
 Where do they pump from Engine Room & Cargo Holds  
 No. of Donkey Engines one Size of Pumps 4 x 6" Where do they pump from Sea Hot well, Bilges & Ballast Tanks  
 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" Are they connected to condenser, or to circulating pump circ. pump.  
 How are the pumps worked by crosshead  
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both  
 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 none How are they protected —  
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times yes  
 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 on ship before vessel was launched & at Arg 19<sup>th</sup> July  
 Is the screw shaft tunnel watertight no Leavel and fitted with a sluice door — worked from —

## BOILERS, &c.—

Number of Boilers one Description Round Horizontal Bull Tubular Whether Steel or Iron Steel  
 Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs per sq in Date of test 9/7/83  
 Description of superheating apparatus or steam chest Round Horizontal Pressure  
 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 32 Description of safety valves Direct spring No. to each boiler two  
 Area of each valve 9.62 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" Diameter of boiler 10.9"  
 Length of boiler 9.6" description of riveting of shell long. seams double butt strap circum. seams double Thickness of shell plates 5/8"  
 Diameter of rivet holes 7/8" whether punched or drilled punched pitch of rivets 3 5/8" Lap of plating 9 1/2" straps  
 Per centage of strength of longitudinal joint 75 working pressure of shell by rules 90 lbs size of manholes in shell 16" x 12"  
 Size of compensating rings 3 1/2" x 3 1/2" x 1/2" No. of Furnaces in each boiler two  
 Outside diameter 37" length, top 6.0" bottom 8.9" thickness of plates 1/2" description of joint double butt strap if rings are fitted in combustion  
 Greatest length between rings 4.4" working pressure of furnace by the rules 100 lbs combustion chamber plating, thickness, sides 1/2" back 1/2" top 1/2"  
 Pitch of stays to ditto, sides 8" x 8" back 8" x 7 1/2" top 9 1/2" x 8" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 90 lbs  
 Pitch of stays to ditto 12" x 12" & 12 1/2" how stays are secured double nuts working pressure by rules 90 lbs diameter of stays at smallest part 1 1/4"  
 smallest part 1 3/4" working pressure by rules 96 lbs Front plates at bottom, thickness 5/8" Back plates, thickness 5/8"  
 Greatest pitch of stays 11 1/2" working pressure by rules 9 lbs Diameter of tubes 3 1/2" pitch of tubes 4 3/4" thickness of tube plates, front 5/8" back 5/8" how stayed stay tubes pitch of stays 9 1/2" x 14 1/2" width of water spaces 5 1/2" to 6 1/2"  
 Diameter of Superheater or Steam chest 2.5" length 4.6" thickness of plates 1/2" description of longitudinal joint lap double diam. of rivet holes 7/8"  
 Pitch of rivets 3" working pressure of shell by rules 207 lbs 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 1/2" how stayed no stays used  
 Superheater or steam chest; how connected to boiler By neck piece with flange

Registered  
 615148-0149  
 Foundation

61929

**DONKEY BOILER**— Description *Round Upright Inside Steel*  
 Made at *Agar* by whom made *J & F Young* when made *1883* where fixed *in Hatcher*  
 Working pressure *60 lbs* tested by hydraulic pressure to *120 lbs* No. of Certificate *1117* fire grate area *12.5 sq feet* description of safety  
 valves *Direct Spring* No. of safety valves *one* area of each *7.5* if fitted with easing gear *yes* if steam from main boilers ca  
 enter the donkey boiler *no* diameter of donkey boiler *4.6* length *9.0* description of riveting *Lap double*  
 Thickness of shell plates *3/8* diameter of rivet holes *3/4* whether punched or drilled *punched* pitch of rivets *2 1/8* lap of plating *1/2*  
 per centage of strength of joint *73* thickness of crown plates *7/16* stayed by *Iron 1 1/2 bar stays*  
 Diameter of furnace, top *4.0* bottom *4.1* length of furnace *4.6* thickness of plates *3/8* description of joint *Lap single*  
 Thickness of furnace crown plates *7/16* stayed by *Bar Stays* working pressure of shell by rules *60 lbs*  
 Working pressure of furnace by rules *60 lbs* diameter of uptake *1 1/2* thickness of plates *3/8* thickness of water tubes *3/8*

**SPARE GEAR.** State the articles supplied:— *2 Connecting rod bolts & nuts. 2 bottom end bolts  
 2 main bearing bolts. 1 set of coupling bolts. 1 set of feed & bilge pump water. 2 g  
 of bolts nuts & iron of various sizes.*

The foregoing is a correct description,

*J & F Young*

Manufacturers

**General Remarks** (State quality of workmanship, opinions as to class, &c. *The Engines & Boilers have been  
 specially surveyed during construction workmanship of good quality. And the  
 Engines & Boilers are now in good order and safe working condition and are in our opinion  
 eligible to be noted in the Register Book. LLOYD'S M.C. 7.83*

The amount of Entry Fee £ 1 : " : " received by me,  
 Special *10/6* .. £ 9 : " : " "  
 Donkey Boiler Fee .. £ " : " : " "  
 Certificate (if required) .. £ " : " : " "  
 To be sent as per margin.

*and  
 Greenock*

(Travelling Expenses, if any, £ *4.9.9* )

Committee's Minute

FRIDAY 27 JULY 1883

*[Signature]*

*Andrew A. Horn & Walter S. Holson*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.  
*Greenock & Glasgow*



Lloyd's Register  
 Foundation