

# REPORT ON MACHINERY.

Port of Glasgow

MUN 15 AUG 1898

No. in Survey held at Paisley Date, first Survey 1. March Last Survey 1. August 1898  
Reg. Book. (Number of Visits 11)

on the S.S. "MAY."

Master Romas Dunn Built at Paisley By whom built J. Fullerton & Sons When built 1898  
Engines made at Paisley By whom made Campbell & Calderwood when made 1898  
Boilers made at Paisley By whom made L. Craig & Co. when made 1898

Registered Horse Power \_\_\_\_\_ Owners Romas Dunn & Matthews Port belonging to Belfast

nom. Horse Power as per Section 28 50. Is Electric Light fitted no.

**GINES, &c.**—Description of Engines Compound Surface Condensing No. of Cylinders 2 No. of Cranks 2  
 Diameter of Cylinders 16" + 32" Length of Stroke 24" Revolutions per minute 6 1/2 Diameter of Screw shaft as per rule 6 3/8  
 Diameter of Tunnel shaft as per rule 5 7/8 as fitted 6 1/2 Diameter of Crank shaft journals 6 1/2 Diameter of Crank pin 6 1/2 Size of Crank webs 1 1/2 x 4 1/2  
 Diameter of screw 8-4" Pitch of screw 9-6" No. of blades 4 State whether moveable no Total surface 18 sq. ft.  
 No. of Feed pumps one Diameter of ditto 2 1/2 Stroke 12" Can one be overhauled while the other is at work   
 No. of Bilge pumps one Diameter of ditto 2 1/2 Stroke 12" Can one be overhauled while the other is at work   
 No. of Donkey Engines one Sizes of Pumps 3 1/2 x 6 stroke No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 1 main, 1 donkey both 2" dia. In Holds, &c. 2 - 2" dia.

No. of bilge injections 1 sizes 4" Connected to condenser, or to circulating pump pump Is a separate donkey suction fitted in Engine room & size 2"  
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible   
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both 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 none How are they protected   
 Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times yes.  
 Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges yes.  
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock before launching Is the screw shaft tunnel watertight none  
 Is it fitted with a watertight door no worked from

**BOILERS, &c.**— (Letter for record (8)) Total Heating Surface of Boilers 973 Sq. ft. Is forced draft fitted no.  
 No. and Description of Boilers one multitubular Working Pressure 100 lbs Tested by hydraulic pressure to 200 lbs  
 Date of test 19/7/98 Can each boiler be worked separately  Area of fire grate in each boiler 41" No. and Description of safety valves to  
 each boiler 2 Sakuk Spring 2 1/2" dia Area of each valve 4.91" Pressure to which they are adjusted 105 lbs Are they fitted  
 with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 5 ft about Mean diameter of boilers 11-4 5/8"  
 Length 9-6" Material of shell plates steel Thickness 1/16" Description of riveting: circum. seams double long. seams double & treble  
 Diameter of rivet holes in long. seams 15/16" Pitch of rivets 3.83" + 4.9" Lap of plates or width of butt straps 9 1/2" & 14 1/4"  
 Percentages of strength of longitudinal joint  
 rivets 77.6 plate 75.5 Working pressure of shell by rules 108 lbs Size of manhole in shell 12" x 16"  
 Size of compensating ring 7" x 3/4" No. and Description of Furnaces in each boiler 2 Plain Material steel Outside diameter 3-9"  
 Length of plain part top 5-8" bottom 4-10" Thickness of plates crown 9/16" bottom 9/16" Description of longitudinal joint welded No. of strengthening rings none  
 Working pressure of furnace by the rules 107 lbs Combustion chamber plates: Material steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 1/2"  
 Pitch of stays to ditto: Sides 8 1/2 x 9 Back 8 1/2 x 8 1/2 Top 8 1/2 x 8 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 100 lbs  
 Material of stays steel Diameter at smallest part 1 1/8" Area supported by each stay 76.5" Working pressure by rules 102 lbs End plates in steam space:  
 Material steel Thickness 9/16" Pitch of stays 16 x 16" How are stays secured nuts Working pressure by rules 104 lbs Material of stays steel  
 Diameter at smallest part 1 7/16" Area supported by each stay 256" Working pressure by rules 104 lbs Material of Front plates at bottom steel  
 Thickness 9/16" Material of Lower back plate steel Thickness 5/8" Greatest pitch of stays 17" Working pressure of plate by rules 100 lbs  
 Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" Material of tube plates steel Thickness: Front 9/16" Back 21/32" Mean pitch of stays 9 1/2"  
 Pitch across wide water spaces 14 1/2" Working pressures by rules 160 lbs Girders to Chamber tops: Material steel Depth and  
 thickness of girder at centre 6 7/8" x 1 1/2" Length as per rule 31 1/2" Distance apart 8 1/2" Number and pitch of Stays in each 3 - 8 1/2"  
 Working pressure by rules 105 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked  
 separately  Diameter  Length  Thickness of shell plates  Material  Description of longitudinal joint  Diam. of rivet  
 holes  Pitch of rivets  Working pressure of shell by rules  Diameter of flue  Material of flue plates  Thickness   
 If stiffened with rings  Distance between rings  Working pressure by rules  End plates: Thickness  How stayed   
 Working pressure of end plates  Area of safety valves to superheater  Are they fitted with easing gear

If not, state whether, and in what part

16324. 70.

**DONKEY BOILER**— Description *None.*  
 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  Pressure to which they are adjusted  If fitted with easing gear  If steam from main boilers can enter the donkey boiler   
 Diameter of donkey boiler  Length  Material of shell plates  Thickness   
 Description of riveting long. seams  Diameter of rivet holes  Whether punched or drilled  Pitch of rivets   
 Lap of plating  Per centage of strength of joint  Rivets  Thickness of shell crown plates  Radius of do.  No. of Stays to do.   
 Dia. of stays  Diameter of furnace Top  Bottom  Length of furnace  Thickness of furnace 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 uptake plates  Thickness of water tubes

**SPARE GEAR.** State the articles supplied:— *2 Top end bolts, 2 bottom end bolts, 2 main bearing bolts, 1 set coupling bolts, 1 set ped & bulge pumps valves etc.*

The foregoing is a correct description,  
 Manufacturer.

*Campbell Callerton*

Dates of Survey } *1898. March 8. 24. May 5. 28. 30. June 2. 6. 27. July 4. 7. 14. 19. 28. August 2.*  
 During progress of work in shops - - }  
 During erection on board vessel - - } *3. 5. 8.*  
 building }  
 Total No. of visits *Seventeen*

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

**ENGINES**—Length of stern bush *23* Diameter of crank shaft journals *6.08* as per rule *6.08* Diameter of thrust shaft under collars *6 1/4* as fitted *6 1/2*

**BOILERS**—Range of tensile strength *28-37* Are they welded or flanged *no* **DONKEY BOILERS**—No.  Range of tensile strength

Is the approved plan of main boiler forwarded herewith *Yes.* Is the approved plan of donkey boiler forwarded herewith *none.*

*The machinery of this vessel has been constructed under special survey, the material & workmanship is good & it has been securely fitted on board.*  
*In my opinion the machinery is eligible to be classed in the Register Book & to have a record of + L.M.C. 8.98.*

*It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 8.98*  
*J.H.S.*  
*15/8/98*

The amount of Entry Fee... £ 1 : : : When applied for, 12. 8. 98  
 Special... £ 8 : : : 25/8/98  
 Donkey Boiler Fee... £ : : :  
 Travelling Expenses (if any) £ : : : 24. 5. 98

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

Committee's Minute  
 Assigned  
 TUES. 16 AUG 1898  
 MACHINERY CERTIFICATE WRITTEN.  
*+ L.M.C. 8.98*



Glasgow

Certificate (if required) to be sent to

The Surveyors are requested not to write out of below the space for Committee's Minute.