

REPORT ON MACHINERY.

Port of Glasgow

MUN 15 AUG 1898

No. in Survey held at
Reg. Book.PaisleyDate, first Survey 1. MarchLast Survey 1. August 1898(Number of Visits 11)

on the

S.S. "MAY."

Tons

Gross 261.25Net 48.25When built 1898Master Romas Burns

Built at

Paisley

By whom built

J. Fullerton & Sons

Engines made at

Paisley

By whom made

Campbell & Calderwoodwhen made 1898

Boilers made at

Paisley

By whom made

L. Craig & Co.when made 1898

Registered Horse Power

Owners

Burns, Dunn & Matthews

Port belonging to

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

GINES, &c.—Description of Engines

Compound Surface CondensingNo. of Cylinders 2No. 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 3/8as fitted 6 1/4

Diameter of Tunnel shaft

as per rule 5 7/8as fitted 6 1/2

Diameter of Crank shaft journals

6 1/2"

Diameter of Crank pin

6 1/2"

Size of Crank webs

11 1/2" x 4 1/2"

Diameter of screw

8" & 4"

Pitch of screw

9" & 6"No. of blades 4State whether moveable noTotal surface 18 sq. ft.No. of Feed pumps oneDiameter of ditto 2 1/2"Stroke 12"Can one be overhauled while the other is at work ✓No. of Bilge pumps oneDiameter 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 1sizes 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 yesAre the roses in Engine room always accessible yesAre 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 yesAre the discharge pipes above or below the deep water line aboveAre they each fitted with a discharge valve always accessible on the plating of the vessel yesAre the blow off cocks fitted with a spigot and brass covering plate yesWhat pipes are carried through the bunkers noneHow are they protected ✓Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges yesWhen were stern tube, propeller, screw shaft, and all connections examined in dry dock before launchIs the screw shaft tunnel watertight noneIs it fitted with a watertight door noworked from ✓

BOILERS, &c.—

(Letter for record (8))

Total Heating Surface of Boilers

973 sq. ft.Is forced draft fitted noNo. and Description of Boilers one multitubular

Working Pressure

100 lbsTested by hydraulic pressure to 200 lbsDate of test 19/7/98Can each boiler be worked separately ✓

Area of fire grate in each boiler

No. and Description of safety valves to

each boiler 2 Patent Spring2 1/2" diaArea of each valve 4.91"

Pressure to which they are adjusted

105 lbs

Are they fitted

with easing gear yesSmallest distance between boilers or uptakes and bunkers or woodwork 5 ft aboutMean diameter of boilers 11" & 4 5/8"Length 9.6"Material of shell plates steelThickness 1/4"Description of riveting: circum. seams doublelong. seams double & trebleDiameter 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"8" & 14 1/4"

Percentage of strength of longitudinal joint

rivets 77.6plate 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 PlainMaterial steelOutside 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 weldedNo. of strengthening rings noneWorking pressure of furnace by the rules 107 lbsCombustion chamber plates: Material steelThickness: 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 nutsWorking pressure by rules 100 lbsMaterial of stays steelDiameter at smallest part 1 1/8"Area supported by each stay 76.5"Working pressure by rules 103 lbs

End plates in steam space:

Material steelThickness 9/16"Pitch of stays 16" x 16"How are stays secured nutsWorking pressure by rules 104 lbsMaterial of stays steelDiameter at smallest part 1 7/8"Area supported by each stay 256"Working pressure by rules 104 lbsMaterial of Front plates at bottom steelThickness 9/16"Material of Lower back plate steelThickness 5/8"Greatest pitch of stays 17"Working pressure of plate by rules 100 lbsDiameter of tubes 3 1/2"Pitch of tubes 4 1/2"Material of tube plates steelThickness: Front 9/16"Back 2 1/2"Mean pitch of stays 9 1/2"Pitch across wide water spaces 14 1/2"Working pressures by rules 160 lbsGirders 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"Working pressure by rules 105 lbsSuperheater 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 ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓Working pressure of end plates ✓Area of safety valves to superheater ✓Are they fitted with easing gear ✓

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 pump valves etc.*

The foregoing is a correct description,

Manufacturer.

Campbell & Callerton

Dates of Survey ☒ During progress of work in shops— *1898. March 8. 24. May 5. 28. 30. June 2. 6. 22. July 4. 7. 14. 19. 28. August 2.*
☒ 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 *as per rule 6.08* Diameter of thrust shaft under collars *6 1/4"*
 as fitted *6 1/2"*

BOILERS—Range of tensile strength *28-32* Are they welded or flanged *m* 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

15/8/98

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

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

MACHINERY CERTIFICATE
 WRITTEN.

TUES. 16 AUG 1898

Committee's Minute

Assigned

+ L.M.C. 8.98



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 Foundation

Glasgow

Certificate (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)