

REPORT ON MACHINERY.

No. 5424

(Received in London Office)

No. in Survey held at
Reg. Book.

Paisley & Glasgow

Date, first Survey 21st January Last Survey 2nd July 1881

on the

S S "Hieramosca"

Tons 199.54
177.33

Master Cocurullo

Built at

Paisley

When built

1881

Engines made at

Paisley

By whom made

Hanna Donald & Co when made 1881

Boilers made at

Glasgow

By whom made

Manist & Graham when made 1881

Registered Horse Power

50

Owners

Cocurullo

Port belonging to

Castellamare

ENGINES, &c.—

Description of Engines

Compound, Inverted, Direct acting.

Diameter of Cylinders

17" & 34"

Length of Stroke

18"

No. of Rev. per minute

Point of Cut off, High Pressure

variable

Low Pressure

78"

Diameter of Screw shaft

6"

Diameter of Tunnel shaft

5 1/2"

Diameter of Crank shaft journals

6"

Diameter of Crank pin

6"

size of Crank webs 4" x 8"

Diameter of screw

7'6"

Pitch of screw

8'6"

No. of blades

3

state whether moveable

yes

total surface

15.7 sq ft.

No. of Feed pumps

one

diameter of ditto

4"

Stroke

5"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

one

diameter of ditto

4"

Stroke

6"

Can one be overhauled while the other is at work

yes

Where do they pump from

Fore and after Compartment and Engine Room

No. of Donkey Engines

one

Size of Pumps

1 3/4" x 8"

State Where do they pump from

Fore and after Comp.

and Engine Room

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

1 1/4 dia.

Are they connected to condenser, or to circulating pump

air pump suction

How are the pumps worked

by levers

not for injection

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

bilge suction pipe

How are they protected

cased in with wood.

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

yes

Is the screw shaft tunnel watertight

Shipping box on bulkhead.

and fitted with a sluice door

yes

worked from

before launching & when dry at Paisley

BOILERS, &c.—

Number of Boilers

one

Description

Locomotive type.

(Steel)

Working Pressure

120 lbs

Tested by hydraulic pressure to

240

Date of test

21st June 1881

Description of superheating apparatus or steam chest

—

Can each boiler be worked separately

yes

Can the superheater be shut off and the boiler worked separately

yes

No. of square feet of fire grate surface in each boiler

42 sq. ft.

Description of safety valves

died spring (Cockburn)

No. to each boiler

two

area of each valve

11 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

yes

Smallest distance between boilers and bunkers or ~~woodwork~~

6"

Diameter of boilers

6 ft.

Length of boilers

14'7"

description of riveting of shell long. seams

butt double.

circum. seams

lap single

Thickness of shell plates

7/8"

diameter of rivet holes

1 1/16"

whether punched or drilled

drilled

pitch of rivets

3 1/4" x 2 3/16"

Lap of plating

7 3/4"

butt per centage of strength of longitudinal joint

91

working pressure of shell by rules

154 lbs

Size of manholes in shell

16" x 12"

size of compensating rings

6" x 7/8"

No. of Furnaces in each boiler

one

outside diameter

—

length, top

7'0"

bottom

6'0"

Thickness of plates

7/8"

description of joint

lap single

if rings are fitted

yes

greatest length between rings

—

Working pressure of furnace by the rules

Stayed 6 1/2" x 6" & 1 1/8" stays riveted = 150 lbs

Combustion chamber plating, thickness, sides

—

back

—

top

—

Pitch of stays to ditto

—

sides

—

back

—

top

—

If stays are fitted with nuts or riveted heads

yes

working pressure of plating by rules

—

Diameter of stays at smallest part

1"

working pressure of ditto by rules

120 lbs

End plates in steam space, thickness

1/16"

pitch of stays to ditto

12" x 12"

how stays are secured

nut & washer

Working pressure by rules

120 lbs

diameter of stays at smallest part

1 1/2"

2"

working pressure by rules

130 lbs

Front plates at bottom, thickness

1/16"

Side

—

Back plates, thickness

7/8"

greatest pitch of stays

6" x 6"

working pressure by rules

—

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Diameter of tubes 2" 1/2 pitch of tubes 2 3/4" thickness of tube plates, front 5/8" back 1/16"
How stayed 6 stay like pitch of stays 9" x 11" width of water spaces 3/4"
Diameter of Superheater or Steam chest ✓ length ✓
Thickness of plates ✓ description of longitudinal joint ✓ diameter 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 ✓

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 ✓
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 ✓

The foregoing is a correct description,
James Donald & Wilson Manufacturer.

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

Test made from crane - left
Sample No 1 --- 1" x .3 = .3 8.25 27.5
" 2 --- 1.02 x .301 = .307 8.58 28 } Mean elongation 16.4% in 8 inches
Another sample sent cold under the steam hammer quite close without fracture
The Boiler and Machinery have been specially surveyed during construction, they are now in good order & safe working condition &
eligible in our opinion to be noted in the Register Book.
* Lugan M.C. 7.81

The amount of Entry Fee .. £ 2 : 0 : 0 received by me,

Special £ 8 : 0 : 0

Certificate (if required) .. £ Protn: 4/7/ 1881

To be sent as per margin.

(Travelling Expenses, if any, £ 1/- 1/2 - 6)

Committee's Minute

July 5. 1881

1881

+ Lloyd's

James Donald & Wilson
Engineer Surveyors to Lloyd's Register of British & Foreign Shipping.

Glasgow

Lloyd's Register
Foundation