

## REPORT ON MACHINERY.

Port of

Glasgow

No. in Survey held at

Greenock &amp; Glasgow

Date, first Survey

12 July '99

Received at London Office

Last Survey

10 April 1900

Reg. Book.

on the "S. S. Pandrosia"

(Number of Visits 23.)

Gross 3326.20  
Tons Net 2165.20

Master Thomas Brady

Built at Greenock

By whom built

Russell &amp; Co (Glasgow)

When built 1900

Engines made at

Greenock

By whom made

J. G. Nicolson &amp; Co

when made 1900

Boilers made at

Glasgow

By whom made

Barclay Curle &amp; Co Ltd

when made 1900

Registered Horse Power 290

Owners

The Steamship Pandrosia Co (Lim)

Port belonging to Liverpool

Nom. Horse Power as per Section 28 288.

Is Refrigerating Machinery fitted

no

Is Electric Light fitted

no

## ENGINES, &amp;c.—Description of Engines

No. of Cylinders

No. of Cranks

Dia. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule

Lgth. of stern bush

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

collars

Dia. 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

No. of Donkey Engines

Sizes of Pumps

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

In Holds, &amp;c.

No. of bilge injections

sizes

Connected to condenser, or to circulating pump

Is a separate donkey suction fitted in Engine room &amp; size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

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 and all boiler mountings accessible at all times

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication 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

Is it fitted with a watertight door

worked from

## BOILERS, &amp;c.—

(Letter for record S.)

Total Heating Surface of Boilers

4311 ft<sup>2</sup>

Is forced draft fitted

no

No. and Description of Boilers

2 Multitubular

Working Pressure

180 lb

Tested by hydraulic pressure to

360 lb

Date of test

31/1/1900

Can each boiler be worked separately

yes

Area of fire grate in each boiler

64.5

No. and Description of safety valves to

each boiler

Two direct spring

Area of each valve

7.06 sq

Pressure to which they are adjusted

183 lb

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

12"

Mean dia. of boilers

15'-3"

Length

10'-6"

Material of shell plates

Steel

Thickness

1 1/4"

Range of tensile strength

28 to 32

Are they welded or flanged

Neither

Descrip. of riveting: cir. seams

Double

long. seams

Double

Diameter of rivet holes in long. seams

1 5/16"

Pitch of rivets

9/8"

Lap of plates or width of butt straps

1' 4 1/2" x 18" + 9/16"

Per centages of strength of longitudinal joint

rivets 88.6%

Working pressure of shell by rules

182 lb

Size of manhole in shell

12" x 16"

Size of compensating ring

Flanged piece 2' 10" x 2' 6"

No. and Description of Furnaces in each boiler

3 Doughton

Material

Steel

Outside diameter

4' 1 1/4"

Length of plain part

top 6' 8" bottom 6' 8"

Thickness of plates

crown 19" bottom 32"

Description of longitudinal joint

Weld

No. of strengthening rings

—

Working pressure of furnace by the rules

192 lb

Combustion chamber plates: Material

Steel

Thickness: Sides

19" 32"

Back

19" 32"

Top

19" 32"

Bottom

4 1/2"

Pitch of stays to ditto: Sides

4' x 9/8"

Back

8' x 8"

Top

4' 1/2" x 3 3/4"

stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

190 lb

Material of stays

Steel

Diameter at smallest part

1 1/2" 19/16"

Area supported by each stay

64"

Working pressure by rules

200 lb

End plates in steam space:

Material

Steel

Thickness

1 1/4"

Pitch of stays

18 3/4" x 20 1/2"

How are stays secured

Double nuts

Working pressure by rules

182 lb

Material of stays

Steel

Diameter at smallest part

8 1/2"

Area supported by each stay

384"

Working pressure by rules

220 lb

Material of Front plates at bottom

Steel

Thickness

28 3/4"

Material of Lower back plate

Steel

Thickness

4 1/2"

Greatest pitch of stays

13 3/4" x 8"

Working pressure of plate by rules

—

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

Steel

Thickness: Front

2 3/4"

Back

1 7/8"

Mean pitch of stays

11 1/4"

Pitch across wide water spaces

14 1/2"

Working pressures by rules

187 lb

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

9' x 3 1/2"

Length as per rule

2' 4 1/2"

Distance apart

8 3/4"

Number and pitch of Stays in each

3-4 1/2"

Working pressure by rules

200 lb

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

—

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



DONKEY BOILER— No. Description  
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 no. Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile strength Descrip. of riveting long. seams Dia. of shell holes Whether punched or drilled Pitch of rivets  
Lap of plating Percentage of strength of joint Rivets Plates 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:—

The foregoing is a correct description,  
Pro. Barclay Curle & Co. Manufacturer. John G. Kincaid & Co.  
Dates of Survey while building { During progress of work in shops - - 1899: - July. 12. 27. Aug. 3. 9. 30. Sep. 2. 7. 11. 16. Oct. 10. 13. 24. 31. Nov. 3. 9. Dec. 18. 22.  
During erection on board vessel - - 1900: - Jan. 11. 16. 22. 31. Feb. 6. Apr. 10.  
Total No. of visits 23.  
Is the approved plan of main boiler forwarded herewith Yes  
" " " donkey " " "

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

The main Boilers of this vessel have now on completion been forwarded to Greenock to be fitted on board by the Engineers Messrs J. Kincaid & Co.  
James McFie  
Glasgow 26/4/1900

Certificate (if required) to be sent to

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

The amount of Entry Fee £ : : When applied for.  
3 Special £ 11 : 9 : 25. 9. 1900  
Donkey Boiler Fee £ : : When received.  
Travelling Expenses (if any) £ : : 14/5/00

Committee's Minute

Assigned

4 MAY 1900

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



© 2021

Lloyd's Register Foundation