

REPORT ON BOILERS.

No. 23979
TUES. 15 MAY 1906Port of *Glasgow*

Received at London Office

No. in Survey held at
Reg. Book.*Glasgow*

Date, first Survey

30 March

Last Survey

17 August 1905

(Number of Visits)

on the *Donkey boiler for S. S. Auchendale*

Master

Built at

Port Glasgow

By whom built

Russell & Co. (L: 656)

When built

1906

Engines made at

Glenasmole

By whom made

J. Kincaid & Co.

when made

1906

Boilers made at

Glasgow

By whom made

Barclay Curle & Co. (J.N. 6)

when made

1906

Registered Horse Power

Owners

Port belonging to

MULTITUBULAR BOILER

~~MANUFACTURED BY~~ *W. Beardmore & Co. Ltd.*(Letter for record *S.*)

Total Heating Surface of Boilers

788 ft²

Is forced draft fitted

No. and Description of

Boilers *One single ended*

Working Pressure

80 lbs

Tested by hydraulic pressure to

160 lbs Date of test *17-8-05*

No. of Certificate

7662

Can each boiler be worked separately

Area of fire grate in each boiler

29.2 ft²

No. and Description of

safety valves to each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

*10'-0"*Length *9'-0"*

Material of shell plates

Steel

Thickness

1/2"

Range of tensile strength

28-32

Are the shell plates welded or flanged

No.

Descrip. of riveting: cir. seams

*D. K. L. long. seams**D. K. S.*

Diameter of rivet holes in long. seams

3/4"

Pitch of rivets

3 5/16"

Lap of plates or width of butt straps

7 5/8"

Per centages of strength of longitudinal joint

rivets *78*

Working pressure of shell by

plate *77*

rules

84 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

28 1/2" x 24 1/2" x 3/8"

No. and Description of Furnaces in each

boiler *2. plain*

Material

Steel

Outside diameter

36 1/16"

Length of plain part

top *68"*bottom *96"*

Thickness of plates

crown *1 1/32"*

bottom

Description of longitudinal joint

weld

No. of strengthening rings

none

Working pressure of furnace by the rules

89 lbs

Combustion chamber

plates: Material

Steel

Thickness: Sides

1 5/32"

Back

1 5/32"

Top

1 5/32"

Bottom

1 7/32"

Pitch of stays to ditto: Sides

9" x 9"

Back

*9" x 8 3/8"*Top *9" x 7 1/4"*

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

83 lbs

Material of stays

Steel

Diameter at

smallest part

96"

Area supported by each stay

81"

Working pressure by rules

97 lbs

End plates in steam space: Material

Steel

Thickness

3/4"

Pitch of stays

14 1/2"

How are stays secured

D. nuts

Working pressure by rules

120 lbs

Material of stays

Steel

Diameter at smallest part

2-00"

Area supported by each stay

210"

Working pressure by rules

96 lbs

Material of Front plates at bottom

Steel

Thickness

3/4"

Material of

Lower back plate

Steel

Thickness

3/4"

Greatest pitch of stays

18 1/4"

Working pressure of plate by rules

100 lbs

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2"

Material of tube plates

Steel

Thickness: Front

3/4"

Back

9/16"

Mean pitch of stays

11 1/4"

Pitch across wide

water spaces

13 1/2"

Working pressures by rules

110 lbs

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

5" x 9 1/16"

Length as per rule

26"

Distance apart

7 1/4"

Number and pitch of Stays in each

2 x 9"

Working pressure by rules

86 lbs

Superheater or Steam chest: how connected to boiler

✓

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

✓

VERTICAL DONKEY BOILER

No.

Description

Manufacturers of steel

Made at

By whom made

When made

Where fixed

Working pressure

tested by hydraulic pressure to

Date of test

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

Dia. of donkey boiler

Length

Material of shell plates

Thickness

Range of tensile

strength

Descrip. of riveting long. seams

Dia. of rivet holes

Whether punched or drilled

Pitch of rivets

Lap of plating

Per centage of strength of joint

Rivets
Plates

Working pressure of shell by rules

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

Working pressure of furnace by rules

Thickness of furnace crown

plates

Radius of do.

Stayed by

Diameter of uptake

Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description,
FOR BARCLAY CURLE & CO., LTD

Manufacturer.

James Gilchrist
Director.

Dates of Survey while building

During progress of work in shops - -
During erection on board vessel - -
Total No. of visits*1905. Mar. 30. Apr. 7. May 1. & 19 June 20. 30. July 10. 13. Aug. 3. 17.*

Is the approved plan of main boiler forwarded herewith

" donkey "

" "

W 402-3223

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Lloyd's Register
Foundation

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been constructed under Special
 survey the materials & workmanship are good &
 efficient.

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

The amount of Entry Fee... £
 Special ... £
 Donkey Boiler Fee ... £ 2 : 2
 Travelling Expenses (if any) £

When applied for.

19

When received.

19/5/06

Thos L. Thomson

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

Glasgow - 8 MAY 1906

Committee's Minute

Assigned

See Glasgow Report No. 23932.



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