

REPORT ON BOILERS.

No. 25058

Received at London Office

SAT. NOV. 18. 1911

Date of writing Report

19

When handed in at Local Office

19

Port of

SUNDERLAND.

No. in Survey held at
Reg. Book.

SUNDERLAND.

Date, First Survey

5 Jan

Last Survey 31. 10. 11

19

(Number of Visits 12)

Gross 3708

Net 2393

on the

Steel S.S. "Canto"

Master Richardson

Built at

Sunderland

By whom built

J. L. Thompson & Sons, Ltd.

When built

1911

Engines made at

Sunderland

By whom made

John Dickinson & Sons, Ltd.

when made

1911

Boilers made at

do.

By whom made

do.

when made

1911

Registered Horse Power

Owners

Northumbrian Shipping Co. Ltd.
(A. Nicholson & Sons)

Port belonging to

Liverpool

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY. Manufacturers of Steel

J. Spencer & Sons

(Letter for record S)

Total Heating Surface of Boilers

634 sq ft

Is forced draft fitted

No

No. and Description of

Boilers 1 S.E. cylindrical multiple

Working Pressure

100 lb

Tested by hydraulic pressure to

200 lb

Date of test 29.6.11

No. of Certificate

2925

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

24 sq ft

No. and Description of

safety valves to each boiler

2 spring

Area of each valve

4.91 sq in

Pressure to which they are adjusted

100 lb

Are they fitted with easing gear

Yes

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

No

Smallest distance between boilers or uptakes and bunkers or woodwork

On deck

Mean dia. of boilers

9.5 1/2 ft

Length

9.6 ft

Material of shell plates

steel

Thickness

9/32 in

Range of tensile strength

28/32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

d.r. lap

long. seams

t.r. lap

Diameter of rivet holes in long. seams

1 in

Pitch of rivets

4 1/4 in

Lap of plates or width of butt straps

7 1/2 in

Per centages of strength of longitudinal joint

rivets 79.8

plate 76.4

Working pressure of shell by

rules 102.1 lb

Size of manhole in shell

16 X 12 in

Size of compensating ring

8 X 19/32 in

No. and Description of Furnaces in each

boiler 2 plain

Material

steel

Outside diameter

36 in

Length of plain part

top 5.10

bottom 6.5 1/2

Thickness of plates

crown 33/64

bottom 3/64

Description of longitudinal joint

single butt strap

No. of strengthening rings

2 ring

Working pressure of furnace by the rules

102.1 lb

Combustion chamber

plates: Material

steel

Thickness: Sides

5/8 in

Back

5/8 in

Top

5/8 in

Bottom

5/8 in

Pitch of stays to ditto: Sides

11 X 10

Back 12 1/2 X 10 5/8

Top 11 X 10 If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

100 lb

Material of stays

steel

Diameter at

smallest part 1.73 in

Area supported by each stay

132.8 sq in

Working pressure by rules

104 lb

End plates in steam space: Material

steel

Thickness

13/16 in

Pitch of stays

9 1/2 X 16 1/2 in

How are stays secured

nut and washer, 2 centre stays

Working pressure by rules

113 lb

Material of stays

steel

Diameter at smallest part

3.25 in

Area supported by each stay

323.8 sq in

Working pressure by rules

100 lb

Material of Front plates at bottom

steel

Thickness

13/16 in

Material of

Lower back plate

steel

Thickness

13/16 in

Greatest pitch of stays

12 1/2 X 10 5/8 in

Working pressure of plate by rules

171 lb

Diameter of tubes

3 1/4 in

Pitch of tubes

4 1/2 X 4 1/2 in

Material of tube plates

steel

Thickness: Front

13/16 in

Back

9/16 in

Mean pitch of stays

9 in

Pitch across wide

water spaces

13 1/4 in

Working pressures by rules

135 lb

Girders to Chamber tops: Material

steel

Depth and thickness of

girder at centre

6 X 2 in

Length as per rule

25 9/16 in

Distance apart

11 in

Working pressure by rules 109 lb 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

The foregoing is a correct description,

John Dickinson & Sons, Limited.

Manufacturer.

Dates of Survey
During progress of work in shops - -
while building
During erection on board vessel - - -

1911. Jan 5. 9. 23. Feb 15. Mar 1. 9. 28. 30

Is the approved plan of boiler forwarded herewith

Yes

Oct 18. 20. 22. 31

Total No. of visits

12

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

This donkey boiler has been built under special survey and tested as per Rules. The workmanship & materials are good. The boiler has been fitted on board and its safety valves adjusted under steam.

Survey Fee

£ 2 : 2 : -

When applied for

15. 11. 1911

Travelling Expenses (if any) £

When received

17. 11. 1911

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

Committee's Minute

TUE. NOV. 21. 1911

Assigned



Lloyd's Register
Foundation