

## REPORT ON BOILERS.

No. 5238  
MUN. 14 FEB 1910

Received at London Office

Date of writing Report

10

When handed in at Local Office

10

Port of

MIDDLESBROUGH-ON-TEES.

No. in

Survey held at

Stockton &amp; Newcastle on Tyne

Date, First Survey

9<sup>th</sup> May 1907

Last Survey

9<sup>th</sup> July 1910

Reg. Book.

on the Donkey Boiler No 2229 for s/s "Boverton"

(Number of Visits)

Gross 3117

Net 1953

When built 1901/1910

Master

Built at

Newcastle

By whom built

J. S. S. B. &amp; Co. Ltd

When made

1910

Engines made at

Waltham

By whom made

North Eastern Marine Eng<sup>g</sup> Co. Ltd

when made

1910

Boilers made at

Stockton

By whom made

J. S. S. B. &amp; Co. Ltd

when made

1907

Registered Horse Power

Owners

Evan Thomas Radcliffe &amp; Co.

Port belonging to

Cardiff

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

J. Spencer &amp; Son Ltd

Letter for record

a

Total Heating Surface of Boilers

621  $\frac{1}{2}$ 

Is forced draft fitted

no

No. and Description of

Boilers

One Cyl Tubular

Working Pressure

90 lb

Tested by hydraulic pressure to

180 lb

Date of test

26-9-07

No. of Certificate

4021

Can each boiler be worked separately

—

Area of fire grate in each boiler

26.5  $\frac{1}{2}$ 

Safety valves to each boiler

2 Spring Patent

Area of each valve

5.41  $\frac{1}{2}$ 

Pressure to which they are adjusted

90 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

Dia. of boilers

9'-0"

Length

9'-0"

Material of shell plates

Steel

Thickness

17/32

Range of tensile strength

28/32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

L.S. Riv. long. seams

L. Riv. Riv.

Diameter of rivet holes in long. seams

15/16

Pitch of rivets

3 1/2

Lap of plates or width of butt straps

6 1/2

Per centages of strength of longitudinal joint

rivets 73.3

Working pressure of shell by

plate 94.5

rules

90.4 lb

Size of manhole in shell

16 x 12

Size of compensating ring

5 1/2 x 3/4

No. and Description of Furnaces in each

boiler

Two, plain

Material

Steel

Outside diameter

2'-9"

Length of plain part

top 5'-10 1/2"

Thickness of plates

crown 1/2"

bottom 1/2"

Description of longitudinal joint

Welded

No. of strengthening rings

—

Working pressure of furnace by the rules

98 lb

Combustion chamber

plates: Material

Steel

Thickness: Sides

9/16

Back

9/16

Top

9/16

Bottom

5/8

Pitch of stays to ditto: Sides

9 1/4 x 9

Back 9 x 9

Top

8 1/2 x 9

If stays are fitted with nuts or riveted heads

riv heads

Working pressure by rules

98 lb

Material of stays

Iron

Smallest part

1'-4 1/2"

Area supported by each stay

82-1/2"

Working pressure by rules

141 lb

End plates in steam space: Material

Steel

Thickness

3/4"

Pitch of stays

5 1/2 x 16 1/2"

How are stays secured

72 x 15

Working pressure by rules

104 lb

Material of stays

Iron

Material of stays at smallest part

3'-4 1/2"

Area supported by each stay

255-75"

Working pressure by rules

100 lb

Material of Front plates at bottom

Steel

Thickness

3/4"

Material of

Lower back plate

Steel

Thickness

3/4"

Greatest pitch of stays

13 x 9"

Working pressure of plate by rules

148 lb

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/4 x 4 1/4"

Material of tube plates

Steel

Thickness: Front

3/4"

Back

9/16"

Mean pitch of stays

9.51

Pitch across wide

water spaces

13 1/2"

Working pressures by rules

110 lb

Girders to Chamber tops: Material

Steel

Depth and thickness of

girders

at centre

5 3/4 x 1 1/4"

Length as per rule

24"

Distance apart

8 1/2"

Number and pitch of Stays in each

One 9"

Working pressure by rules

96 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

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,

THOMAS SUDRON &amp; CO. LTD

The foregoing is a correct description,

B. Johnston

Manufacturer.

Dates

During progress of

1904 May 9 June 24 July 15-26 Aug 8-24

Is the approved plan of boiler forwarded herewith

Yes

of Survey

work in shops - - -

Sept 5-12-20-26

while

During erection on

board vessel - - -

building

See note report on machinery

Total No. of visits

166

report

Manda

GENERAL REMARKS

(State quality of workmanship, opinions as to class, &amp;c.)

This boiler has been

constructed under special survey the materials and workmanship are good & efficient & when tested with hydraulic pressure was found tight and satisfactory. This boiler has been carefully attended to & kept coated during the time it has been in the works, & in my opinion may be considered as a new boiler at this date 1910; it has been satisfactorily mounted, & the safety valves adjusted under steam.

Survey Fee ... £ 2 : 2 : 0

When applied for, 19

Travelling Expenses (if any) £ :

When received, 19

Geo. A. Milner R. W. Coomber.  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

FRI. 18 FEB 1910

Assigned