

Rpt. 5a.

## REPORT ON BOILERS.

No. 9381

Received at London Office TUE. 20 JUN. 1916

Date of writing Report

191

When handed in at Local Office

17.6.16

Port of

Middlesbrough

No. in Survey held at

Stockton-on-Tees

Date, First Survey 1916 Mar 22

Last Survey

Oct. 5. 1916

Reg. Book.

on the

S.S. Saragossa

(S.S. No. 231)

Tons Gross 3541

Net 2158

Master

Daniel

Built at

Sunderland

By whom built

J. Blumer &amp; Co

When built

1916

Engines made at

Sunderland

By whom made

North Eastern Marine Engineers

When made

1916

Boilers made at

Stockton

By whom made

Thos. Riley Bros Ltd (No. 4819)

When made

1916

Registered Horse Power

Owners

Schalefeld, H. Schalefeld &amp; Son

Port belonging to

Newcastle

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

John Spencer &amp; Son

(Letter for record

(S)

Total Heating Surface of Boilers

890 sq

Is forced draft fitted

No

No. and Description of

Boilers

One single ended

Working Pressure

120

Tested by hydraulic pressure to

240

Date of test 9.6.16

No. of Certificate

5652

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

29 sq

No. and Description of

safety valves to each boiler

2 direct spring

Area of each valve

5.939 sq

Pressure to which they are adjusted

120 lbs

Are they fitted with easing gear

Yes

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

No. see add. etc.

Smallest distance between boilers or uptakes and bunkers or woodwork

on deck

Mean dia. of boilers

10'-0"

Length

10'-0" 28/10/16

Material of shell plates

steel

Thickness

3/8"

Range of tensile strength

28-32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

2 R. lap

long. seams

2 B-2 Riv

Diameter of rivet holes in long. seams

15/16"

Pitch of rivets

5 1/2"

Lap of plates or width of butt straps

9 x 12 3/32"

Per centages of strength of longitudinal joint

rivets 94.4

Working pressure of shell by

plate 82.9

rules

122

Size of manhole in shell

19" x 15"

Size of compensating ring

7 x 3/8"

No. and Description of Furnaces in each

boiler

2 plain

Material

steel

Outside diameter

36"

Length of plain part

top 74 3/8"

Thickness of plates

crown 13/32"

bottom 10 1/2"

Description of longitudinal joint

Weld

No. of strengthening rings

none

Working pressure of furnace by the rules

135

Combustion chamber

plates: Material

steel

Thickness: Sides

13/32"

Back

13/32"

Top

13/32"

Bottom

3/4"

Pitch of stays to ditto: Sides

10" x 9"

Back

10" x 10"

Top 10" x 9"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

122

Material of stays

steel

Diameter at

smallest part

1 7/8"

Area supported by each stay

100

Working pressure by rules

138

End plates in steam space: Material

steel

Thickness

7/8"

Pitch of stays

15" 1/8" to tubes

How are stays secured

nuts &amp; washers

Working pressure by rules

120

Material of stays

steel

Diameter at smallest part

4 1/11"

Area supported by each stay

322

Working pressure by rules

133

Material of Front plates at bottom

steel

Thickness

7/8"

Material of

Lower back plate

steel

Thickness

7/8"

Greatest pitch of stays

13" x 10"

Working pressure of plate by rules

197

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/4" x 4 1/4"

Material of tube plates

steel

Thickness: Front

7/8"

Back

5/8"

Mean pitch of stays

9 1/2"

Pitch across wide

water spaces

13 1/2"

Working pressures by rules

140

Girders to Chamber tops: Material

steel

Depth and thickness of

girder at centre

7" x 1 1/4"

Length as per rule

28"

Working pressure by rules

122

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

No

No

No

No

No

No

No

No

No

No

No

No

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

No

No

No

No

No

No

No

No

No

No

No

No

FOR The foregoing is a correct description,

RILEY BROS. (BOILERMAKERS) LIMITED

Manufacturer.

Is the approved plan of boiler forwarded herewith

yes

Total No. of visits

14 17

Dates

During progress of

1916 Mar 22 Apr 5-27 May 1-8 12 18 24 26 30 Jun 2 5 7 9

while

work in shops - -

building

During erection on board vessel - - -

Sep 19 29 Oct 5-

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

This boiler has been built under Special Survey: is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results

Survey Fee

£ 2-19-0

When applied for

Monthly &amp;c

Travelling Expenses (if any) £

When received

191

FRI. 27 OCT. 1916

Committee's Minute

Assigned

Wm Morrison & Co  
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
Foundation

W775-0147