

## REPORT ON BOILERS.

No. 8636.

Received at London Office

SAT. SEP. 19. 1914

TUE. NOV. 17. 1914

Date of writing Report

191

When handed in at Local Office

18 Sept. 1914. Port of

MIDDLESBRO'

No. in Survey held at

Stockton

Date, First Survey July 3<sup>rd</sup> 1914.Last Survey Sept 12<sup>th</sup> 1914.

Reg. Book.

on the

Steel screw steamer

"Barford"

BURESK

(SS No. 642)

Tons

Gross

Net

Master

Built at Stockton

By whom built Richardson, Buck &amp; Co. Ltd.

When built 1914

Engines made at

Stockton

By whom made

Messrs. Blain &amp; Co.

When made

1914

Boilers made at

Stockton

By whom made

Riley Bros. Ltd. (No. 4730)

When made

1914

Registered Horse Power

Owners

Messrs. Sandich &amp; Co.

Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY OR DONKEY. — Manufacturers of Steel John Spencer Sons Ltd.

(Letter for record

(a)

Total Heating Surface of Boilers

863 ft<sup>2</sup>

Is forced draft fitted

No. and Description of

Boilers One S. E. Gyle Multi

Working Pressure

90 lbs

Tested by hydraulic pressure to 180 lbs

Date of test 12.9.14

No. of Certificate

5385

Can each boiler be worked separately

Area of fire grate in each boiler

33 ft<sup>2</sup>

No. and Description of

safety valves to each boiler

2 direct spring

Area of each valve

7.07

Pressure to which they are adjusted

95 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

Smallest distance between boilers or uptakes and bunkers or woodwork

1' 9"

Int.

Mean dia. of boilers

10' 0"

Length

10' 0"

Material of shell plates

Steel

Thickness

3/32"

Range of tensile strength

28-32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

B.R. Lap

long. seams

B.P.S. 2 Rivet

Diameter of rivet holes in long. seams

7/16"

Pitch of rivets

4"

Lap of plates or width of butt straps

7 1/2" x 3/32"

Per centages of strength of longitudinal joint

rivets 96.6

plate 76.5

Working pressure of shell by

rules

91 lbs

Size of manhole in shell

19" x 15"

Size of compensating ring

7" x 7"

M. Neil

No. and Description of Furnaces in each

boilers

Two plain

Material

Steel

Outside diameter

36"

Length of plain part

top 78"

Thickness of plates

crown 9/16"

bottom 1/2"

Mean

Description of longitudinal joint

Weld

No. of strengthening rings

None

Working pressure of furnace by the rules

104 lbs

Combustion chamber

plates: Material

Steel

Thickness: Sides

1/2"

Back

1/2"

Top

1/2"

Bottom

3/4"

Pitch of stays to ditto: Sides

9" x 7"

Back

Top

9" x 7"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

97 lbs

Material of stays

Iron

Diameter at

smallest part

1.45"

Area supported by each stay

95.58"

Pitch of stays

18" x 17"

How are stays secured

12" x 2 1/2" doubler

Working pressure by rules

95 lbs

Material of stays

Iron

Diameter at

smallest part

5.05"

Area

Area supported by each stay

324"

Working pressure by rules

117 lbs

Material of Front plates at bottom

Steel

Thickness

2 1/2"

Material of

Lower back plate

Steel

Thickness

2 1/2"

Greatest pitch of stays

13" x 9"

Working pressure of plate by rules

168 lbs

Diameter of tubes

3 1/2"

Pitch of tubes

4 5/8" x 4 1/2"

Material of tube plates

Steel

Thickness: Front

2 1/2"

Back

9/16"

Mean pitch of stays

9 1/4"

Pitch across wide

water spaces

15"

Working pressures by rules

104 lbs

Girders to Chamber tops: Material

Steel

Depth and thickness of

girder at centre

5 1/2" x 1 1/2"

Length as per rule

27"

Distance apart

9"

Number and pitch of Stays in each

207"

Working pressure by rules

99 lbs

Superheater or Steam chest: how connected to boiler

None

Can the superheater be shut off and the boiler worked

separately

yes

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

yes

SURVEY REQUEST

NO. 963. ATTACHED.

RILEY BROS. (BOILER MAKERS) LIMITED.

W. O. Riley, DIRECTOR.

Manufacturer.

Dates of Survey

During progress of work in shops - -

1914. Jul. 3. 31. Aug. 25. 29. Sep. 2. 5. 9. 12.

Is the approved plan of boiler forwarded herewith

Total No. of visits

8

while building

During erection on board vessel - - -

## GENERAL REMARKS

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

This boiler has been constructed under Special Survey, is of good material and workmanship, and has been tested by hydraulic pressure with satisfactory results. It is to be fitted on board the vessel at this port.

Survey Fee ... £ 2 : 18. : }

When applied for, 191

Travelling Expenses (if any) £ : : }

When received, 191

MONTHLY A/c.

Wm Morrison & Co. Ltd.  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

FRI. NOV. 20. 1914

Assigned

Lloyd's Register  
Foundation