

REPORT ON BOILERS.

Mdb. Rpt. No 9339.

No. 9282

Received at London Office TUE. 28. MAR. 1916

Date of writing Report

191

When handed in at Local Office

25/3/16

191

Port of Middlesbrough

No. in

Survey held at

Stockton-on-Tees

Date, First Survey

1915 June 9th

Last Survey

March 17 1916

Reg. Book.

on the Donkey Boiler for the S.S. "Flimston"

(Number of Visits

20)

Gross

(S.S. No 170)

Tons

Net

Master

Built at

Stockton

By whom built

Craig Taylor & Co

When built

1916

Engines made at

Stockton

By whom made

Messrs Blair & Co Ltd.

When made

1916

Boilers made at

Stockton

By whom made

Messrs Riley Bros Ltd (No 4807)

When made

1916

Registered Horse Power

Owners

Port belonging to

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

John Spencer & Sons

(Letter for record

(S)

Total Heating Surface of Boilers

1530 sq

Is forced draft fitted

no

No. and Description of

Boilers

One single ended

Working Pressure

180

Tested by hydraulic pressure to

360 Date of test

17.3.16

No. of Certificate

5624

Can each boiler be worked separately

✓

Area of fire grate in each boiler

50 sq

safety valves to each boiler

2 direct spring

Area of each valve

5.94

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

yes

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

yes

Smallest distance between boilers

or uptakes and bunkers or woodwork

18"

Mean dia. of boilers

12'-6"

Length

11'-0"

Material of shell plates

steel

Thickness

3/32"

Range of tensile strength

29 1/2 - 33

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

2 R. lap

long seams

2 B - 3 Riv

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

7 1/2"

Top of plates or width of butt straps

15 1/4 x 7/8"

Per centages of strength of longitudinal joint

5 Rivs per pitch

rivets

86.3

plate

86.5

Working pressure of shell by

rules

182

Size of manhole in shell

19" x 15"

Size of compensating ring

7" x 9" x 1/2"

No. and Description of Furnaces in each

boiler

3 Dighton

Material

steel

Outside diameter

39 1/2"

Length of plain part

top

✓

Thickness of plates

crown

1/2"

Description of longitudinal joint

Weld

No. of strengthening rings

✓

Working pressure of furnace by the rules

194

Combustion chamber

plates: Material

steel

Thickness: Sides

2 1/32"

Back

2 1/32"

Top

2 1/32"

Bottom

1 3/16"

Pitch of stays to ditto: Sides

9" x 9"

Back

9" x 8 1/2"

Top

9" x 9"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

194

Material of stays

steel

Diameter at

smallest part

1.73

Area supported by each stay

76.5

Working pressure by rules

204

End plates in steam space: Material

steel

Thickness

1"

Pitch of stays

17" x 15"

How are stays secured

nuts

Working pressure by rules

180

Material of stays

steel

Diameter at smallest part

4.57

Area supported by each stay

25.5

Working pressure by rules

186

Material of Front plates at bottom

steel

Thickness

1 5/8"

Material of

Lower back plate

steel

Thickness

7/8"

Pitch of tubes

4 3/8" x 4 1/4"

Material of tube plates

steel

Thickness: Front

1 3/16"

Back

2 3/32"

Mean pitch of stays

9 1/4"

Pitch across wide

water spaces

13 3/8"

Working pressures by rules

182

Girders to Chamber tops: Material

steel

Depth and thickness of

girder at centre

9 1/4" x 1 3/8"

Length as per rule

32"

Distance apart

9"

Number and pitch of Stays in each

2 @ 9"

Working pressure by rules

188

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

SURVEY

REQUEST

FOR The foregoing is a correct description,
RILEY BROS. (BOILERMAKERS) LIMITED.

Manufacturer.

Dates

During progress of

work in shops - - - 1915 Jun 9-24 Oct 21-27 29 Nov 16-23 26 Dec 2-6 7-15 21-23 31

while

During erection on

board vessel - - - 1916 Jan 5-7 Feb 23-25 Mar 9-17

Total No. of visits

20

GENERAL REMARKS (State quality of workmanship, opinions as to class, &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. The boiler is to be fitted on board at this port. This boiler has now been satisfactorily secured on board, examined under steam and safety valves adjusted.

Survey Fee

...

£ 5-2-0

When applied for

Monthly at 1916

Travelling Expenses (if any) £

When received

1916

Wm Morrison

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 26. MAY. 1916

Assigned



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Foundation