

REPORT ON BOILERS.

No. 9300.

11 APR. 1916

Received at London Office

WED. 14 MAR. 1916

Date of writing Report

101

When handed in at Local Office

8.4.16

Port of

Middlesbrough

No. in
Reg. Book.

Survey held at

Stockton-on-Tees

Date, First Survey

Sept 24

Last Survey

April 5 1916

on the

Donkey Boiler for the R.F.A. ~~Almos~~
now named Beechleaf

(Number of Visits

(S.S. N° 649)

Gross

Tons

Net

Master

Built at

Stockton

By whom built

Messrs Richardson Duck & Co

When built

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 (N° 4818)

When made

1916

Registered Horse Power

Owners

Port belonging to

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

John Hume & Sons

(Letter for record

(S)

Total Heating Surface of Boilers

1140 sq ft

Is forced draft fitted

no

No. and Description of

Boilers

One single ended

Working Pressure

100

Tested by hydraulic pressure to

200

Date of test

5.4.16

No. of Certificate

5633

Can each boiler be worked separately

yes

Area of fire grate in each boiler

No. and Description of

safety valves to each boiler

2 direct spring

Area of each valve

7.07 sq in

Pressure to which they are adjusted

105 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 upper deck

Mean dia. of boilers

11'-0"

Length

10'-0"

Material of shell plates

steel

Thickness

1/2"

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 R. lap

Diameter of rivet holes in long. seams

1/2"

Pitch of rivets

5 1/2"

Lap of plates or width of butt straps

9 1/2"

Per centages of strength of longitudinal joint

plate

rivets

94.8

Working pressure of shell by

plate

82.9

rules

103

Size of manhole in shell

19" x 15"

Size of compensating ring

7" x 1"

No. and Description of Furnaces in each

boiler

2 plain

Material

steel

Outside diameter

40"

Length of plain part

top

76"

Description of longitudinal joint

Weld

No. of strengthening rings

none

Working pressure of furnace by the rules

123

Combustion chamber

plates: Material

steel

Thickness: Sides

1/2"

Back

5/8"

Top

1/2"

Bottom

1/2"

Pitch of stays to ditto: Sides

9 1/4" x 8"

Back

9" x 10"

Top

10" x 8"

Bottom

Pitch of stays to ditto: Sides

9 1/4" x 8"

Back

9" x 10"

Top

Bottom

Pitch of stays to ditto: Sides

9 1/4" x 8"

Back

9" x 10"

Top

Top 10" x 8"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

105

Material of stays

steel

Diameter at

smallest part

1.19

Area supported by each stay

90

Working pressure by rules

106

End plates in steam space: Material

steel

Thickness

5/8"

Pitch of stays

20" x 19 1/2"

How are stays secured

nuts & washers

Working pressure by rules

112

Material of stays

steel

Diameter at smallest part

3.67

Area supported by each stay

348

Working pressure by rules

109

Material of Front plates at bottom

steel

Thickness

5/8"

Lower back plate

steel

Thickness

5/8"

Greatest pitch of stays

13" x 10"

Working pressure of plate by rules

189

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

steel

Thickness: Front

5/8"

Back

5/8"

Mean pitch of stays

10 3/8"

Pitch across wide

water spaces

18 1/2"

Working pressures by rules

153

Girders to Chamber tops: Material

steel

Depth and thickness of

girders at centre

6 1/2" x 1 1/2"

Length as per rule

28"

Distance apart

10"

Number and pitch of Stays in each

208"

Working pressure by rules

120

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

The foregoing is a correct description,

RILEY BROS. (BOILERMAKERS) LIMITED

Manufacturer.

SECRETARY

Is the approved plan of boiler forwarded herewith

yes

Total No. of visits

5

Dates

During progress of

work in shops

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

while

During erection on

board vessel

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

building

board vessel

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

19/1-19/2

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. The boiler has now been satisfactorily secured on board, examined under steam and safety valves adjusted - W.M.

Survey Fee

£ 3 + 16-0

When applied for

Monthly

1916

Travelling Expenses (if any) £

✓

When received

1916

Committee's Minute

FRI. 16 MAR. 1917

Assigned

See minute on file attached

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

TUE 16 NOV 1915

FRI. 9 MAY 1916

W1360-0019