

REPORT ON BOILERS.

No. 13361

Received at London Office

9 11 1928

Date of writing Report

6.4.28

When handed in at Local Office

6.4.28

Port of

MIDDLESBROUGH.

No. in Reg. Book

Survey held at STOCKTON

Date, First Survey

21.3.28

Last Survey

6.4.28

12188

on the donkey boiler for S/S "Greenwich"

(Number of Visits

14)

Gross 3518

Tons

Net 3566

Boiler at

S. Shields

By whom built

J. Readhead & Sons

Yard No.

When built

1904-10

Engines made at

"

By whom made

"

"

Engine No.

When made

1904

Boilers made at

By whom made

Boiler No.

When made

Boilers

Watts, Watts & Co. Ltd (ngs)

Port belonging to

London

VERTICAL DONKEY BOILER.

Made at Stockton

By whom made

Riley Bros.

Boiler No. 5826

When made 1928

Where fixed

Manufacturers of Steel

W. Beardmore & Co.

Total Heating Surface of Boiler

800 sq. ft.

Is forced draught fitted

no.

Coal or Oil fired

coal.

No. and Description of Boilers

One Vertical "Riley" type

Working pressure

120 lbs.

Tested by hydraulic pressure to

230 lbs.

Date of test

6.4.28.

No. of Certificate

6655.

Area of Firegrate in each Boiler

34 sq. ft.

No. and Description of safety valves to each boiler

Area of each set of valves per boiler

per rule 7.36

as fitted 9.32

Pressure to which they are adjusted

Are they fitted with easing gear

State whether steam from main boilers can enter the donkey boiler

Smallest distance between boiler or uptake and bunkers

or woodwork

Is oil fuel carried in the double bottom under boiler

Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated

Largest internal dia. of boiler

7'-6"

Height

16'-6"

Shell plates: Material

Steel

Tensile strength

29/33

Thickness

1/2"

Are the shell plates welded or flanged

no.

Description of riveting: circ. seams

end S.R.

inter D.R.

long. seams

T.R. lap.

Dia. of rivet holes in

circ. seams 15/16

long. seams 13/16

Pitch of rivets

2 3/4"

Percentage of strength of circ. seams

plate 55.9

rivets 51.5

of Longitudinal joint

plate 75

rivets 76

Working pressure of shell by rules

120 lbs.

Thickness of butt straps

outer

inner

Shell Crown:

Whether complete hemisphere, dished partial spherical, or flat

dished

Material

Steel

Tensile strength

26/30

Thickness

5/8"

Radius

5'-0"

Working pressure by rules

137 lbs.

Description of Furnace:

Plain, spherical, or dished crown

spherical

Material

Steel

Tensile strength

26/30

Thickness

5/8"

External diameter

top

Length as per rule

Working pressure by rules

129 lbs.

Pitch of support stays circumferentially

✓

and vertically

✓

Are stays fitted with nuts or riveted over

✓

Diameter of stays over thread

Radius of spherical or dished furnace crown

3'-4 1/2"

Working pressure by rule

129 lbs.

Thickness of Ogee Ring

5/8"

Diameter as per rule

D 7'-6"

d 6'-10"

Working pressure by rule

140 lbs.

Combustion Chamber: Material

Steel

Tensile strength

26/30

Thickness of top plate

5/8"

Radius if dished

✓

Working pressure by rule

120 lbs.

Thickness of back plate

5/8"

Diameter if circular 3'-3" radius

Length as per rule

✓

Pitch of stays

12" x 8 3/4"

Are stays fitted with nuts or riveted over

nuts.

Diameter of stays over thread

1 1/2"

Working pressure back plate by rules

163 lbs.

Tube Plates: Material

front Steel

back Steel

Tensile strength

Thickness

5/8"

Mean pitch of stay tubes in nests

10 7/8"

If comprising shell, Dia. as per rule

front

back

Pitch in outer vertical rows

7' x 8 3/4"

Dia. of tube holes

FRONT

stay 2 3/4"

plain 2 3/8"

BACK

stay 2 1/2"

plain 2 1/2"

Is each alternate tube in outer vertical rows a stay tube

Yes.

Working pressure by rules

front 120 lbs.

back 121 lbs.

Girders to combustion chamber tops: Material

Steel

Tensile strength

26/32

Depth and thickness of girder at centre

8' x 7/8" (double).

Length as per rule

2'-6"

Distance apart

12"

No. and pitch of stays in each

2 - 8 7/8"

Working pressure by rule

123 lbs.

Crown stays: Material Steel Tensile strength 28/32 Diameter { at body of stay, 5 1/4" x 1 1/2"
 No. of threads per inch ✓ Area supported by each stay 360 Working pressure by rules 149 lbs
Screw stays: Material Steel Tensile strength 26/30 Diameter { at turned off part, 1 1/2" No. of threads per inch 9
 Area supported by each stay 105 Working pressure by rules 120 lbs Are the stays drilled at the outer ends no
Tubes: Material iron External diameter { plain 2 1/2" to 2 9/16" Thickness { 11 WG
 No. of threads per inch 9 Pitch of tubes 5 1/4" x 3 1/2" & 3 1/2" x 3 1/2" Working pressure by rules p. 125 lbs s. 137 lbs
Manhole Compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 6" x 5/8" No. of rivets and diam
 of rivet holes 36 - 13/16" Outer row rivet pitch at ends 5" Depth of flange if manhole flanged ✓
Uptake: External diameter ✓ Thickness of uptake plate ✓
Cross Tubes: No. ✓ External diameters ✓ Thickness of plates ✓
 Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Y.

The foregoing is a correct description,
 RILEY BROS. (BOILERMAKERS) LIMITED.
 J. L. Shilds. SECRETARY,

Dates of Survey { During progress of work in shops - 1923 Nov 21 Dec 3-8 25-26 May 1-8 28 Jun 1-6 8-9 Jul 6 Is the approved plan of boiler forwarded herewith Y.
 while building { During erection on board vessel - - - - - (If not state date of approval.)
 Total No. of visits 114

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
 The materials and workmanship are good.
 This boiler has been built under special survey in accordance with the Rules and approved Plan. It will be fitted aboard at Hull.

Survey Fee ... £ 5-6-0 When applied for MONTHLY A/C.
 Travelling Expenses (if any) £ : : When received,

Committee's Minute TUES. 28 AUG 1928
 Assigned FRI. 1 FEB 1929
TUE. 16 JUL 1929
 Engineer Surveyor to Lloyd's Register of Shipping.
 P. J. Man. AUG 1928
 Lloyd's Register Foundation