

Rpt. 5a.

REPORT ON BOILERS.

No. 11841

Date of writing Report

192

When handed in at Local Office 18.3.24 192

Received at London Office

FRI. MAR 21 1924

No. in
Reg. Book.

Survey held at

Stockton-on-Tees

Date, First Survey

15th January

Last Survey

14th March 1924

on the

New Steel S.S. Kenton

(Number of Visits

6)

Gross
Tons
Net

Master

Built at

Newcastle

By whom built

Tynes Iron S. B. Co

Yard No. 226

When built

1924

Engines made at

Hullend

By whom made

North Eastern Marine & Cold

Engine No. 2546

When made

1924

Boilers made at

Stockton

By whom made

Thos. Hudson & Co. Ltd

Boiler No. 4903

When made

1924

Nominal Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Messrs John Spencer & Son Ltd

Total Heating Surface of Boilers

945 sq ft

Is forced draught fitted

Yes

(Letter for Record

(5)

No. and Description of Boilers

One single ended

Coal or Oil fired

Coal

Tested by hydraulic pressure to

200

Date of test

14.3.24

No. of Certificate

6349

Working Pressure

100

Area of Firegrate in each Boiler

30.4

No. and Description of safety valves to each boiler

10.3 p.s.i.

Can each boiler be worked separately

Yes

Area of each set of valves per boiler

as fitted

2 @ 5.9 p.s.i.

Pressure to which they are adjusted

103 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

in deck

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

No

Largest internal dia. of boilers

10' - 4 1/2"

Length

10' - 0"

Shell plates: Material

Steel

Tensile strength

28-32

Thickness

19/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

Single Riv. Lap

long. seams

Triple Riv. Lap

Diameter of rivet holes in

circ. seams

15/16"

long. seams

15/16"

Pitch of rivets

2 1/2"

Percentage of strength of circ. end seams

plate

55.9

rivets

43.8

Percentage of strength of circ. intermediate seam

plate

55.9

rivets

43.8

Percentage of strength of longitudinal joint

plate

73.59

rivets

78.3

Working pressure of shell by Rules

102 lbs

Thickness of butt straps

outer

inner

No. and Description of Furnaces in each Boiler

Two plain

Material

Steel

Tensile strength

26-30

Smallest outside diameter

38"

Length of plain part

top

80"

bottom

103 1/2"

Thickness of plates

crown

19/32"

bottom

5/8"

Description of longitudinal joint

Weld

Dimensions of stiffening rings on furnace or c.c. bottom

none

Working pressure of furnace by Rules

104 lbs

End plates in steam space: Material

Steel

Tensile strength

26-30

Thickness

27/32"

Pitch of stays

18"

18 1/2" to tubes

How are stays secured

nuts & 8 3/4" x 1 1/2" brass washers

Working pressure by Rules

108 lbs

Tube plates: Material

front

Steel

back

Steel

Tensile strength

26-30

Thickness

26-30

Pitch of stays

27/32"

Thickness

4 1/2"

Mean pitch of stay tubes in nests

10 1/2"

Pitch across wide water spaces

14" x 13 1/2"

Working pressure

front

229

back

165

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32

Depth and thickness of girder

at centre

6" x 14"

Length as per Rule

25 1/2"

Distance apart

9 1/2"

No. and pitch of stays

in each

one

Working pressure by Rules

105 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26-30

Thickness: Sides

19/32"

Back

1/2"

Top

19/32"

Bottom

4 1/2"

Pitch of stays to ditto: Sides

9 1/2" one

Back

8 1/4" x 9"

Top

9 1/2" one

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

113

Front plate at bottom: Material

Steel

Tensile strength

26-30

Thickness

27/32"

Lower back plate: Material

Steel

Tensile strength

26-30

Thickness

27/32"

Pitch of stays at wide water space

14" x 9"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

210

Main stays: Material

Steel

Tensile strength

28-32

Diameter

At body of stay,

2 1/2"

Over threads

2 1/2"

No. of threads per inch

6

Area supported by each stay

360

Working pressure by Rules

123

Screw stays: Material

Steel

Tensile strength

26-30

Diameter

At turned off part,

1 1/4"

Over threads

1 1/4"

No. of threads per inch

9

Area supported by each stay

74.25

Working pressure by Rules

123

Screw stays: Material

Steel

Tensile strength

26-30

Diameter

At turned off part,

1 1/4"

Over threads

1 1/4"

No. of threads per inch

9

Area supported by each stay

74.25

Working pressure by Rules

123

Screw stays: Material

Steel

Tensile strength

26-30

Diameter

At turned off part,

1 1/4"

Over threads

1 1/4"

No. of threads per inch

9

Area supported by each stay

74.25

Working pressure by Rules

123

Screw stays: Material

Steel

Tensile strength

26-30

Diameter

At turned off part,

1 1/4"

Over threads

1 1/4"

No. of threads per inch

9

Area supported by each stay

74.25

Working pressure by Rules

123

Screw stays: Material

Steel

Tensile strength

26-30

Diameter

At turned off part,

1 1/4"

Over threads

1 1/4"

No. of threads per inch

9

Area supported by each stay

74.25

Working pressure by Rules

123

Screw stays: Material

Steel

Tensile strength

26-30

Diameter

At turned off part,

1 1/4"

Over threads

1 1/4"

No. of threads per inch

9

Area supported by each stay

74.25

Working pressure by Rules

123

Screw stays: Material

Steel

Tensile strength

26-30

Diameter

At turned off part,

1 1/4"

Over threads

1 1/4"

No. of threads per inch

9

Area supported by each stay

74.25

Working pressure by Rules

123

Screw stays: Material

Steel

Working pressure by Rules 107 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 1/8 or Over threads. 1 1/8 ✓
No. of threads per inch 9 Area supported by each stay 100 Working pressure by Rules 101 lb
Tubes; Material iron ✓ External diameter { Plain 3 1/4 Thickness { N. 10 - 4.5.1 No. of threads per inch 9 ✓
Stay 3 1/4 ✓ 3/16 x 1/4 ✓
Pitch of tubes 4 1/2 x 4 1/2 ✓ Working pressure by Rules 130 Manhole compensation: Size of opening in
shell plate 16 x 12 ✓ Section of compensating ring 5 1/2 x 1 1/2 ✓ No. of rivets and diameter of rivet holes 36 @ 1 3/16 ✓
Outer row rivet pitch at ends 3 1/2 ✓ Depth of flange if manhole flanged ✓ Steam Dome: Material iron
Tensile strength _____ Thickness of shell _____ Description of longitudinal joint _____
Diameter of rivet holes _____ Pitch of rivets _____ Percentage of strength of joint { Plate _____ Rivets _____
Internal diameter _____ Working pressure by Rules _____ Thickness of crown _____ No. and diameter of
stays _____ Inner radius of crown _____ Working pressure by Rules _____
How connected to shell _____ Size of doubling plate under dome 1 1/2 ✓ Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell _____

Type of Superheater _____ Manufacturers of { Tubes _____ Steel castings _____
Number of elements _____ Material of tubes _____ Internal diameter and thickness of tubes _____
Material of headers _____ Tensile strength _____ Thickness _____ Can the superheater be shut off and
the boiler be worked separately _____ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler _____
Area of each safety valve _____ Are the safety valves fitted with easing gear _____ Working pressure as per
Rules _____ Pressure to which the safety valves are adjusted _____ Hydraulic test pressure: _____
tubes _____, castings _____ and after assembly in place _____ Are drain cocks or valves fitted
to free the superheater from water where necessary _____

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with _____

The foregoing is a correct description,
THOMAS SUDRON & CO. LIMITED. Manufacturer.

Dates of Survey { During progress of work in shops - - - 1924 Jan 15, 20, 26, 27, 12 Mar 3, 14
while building { During erection on board vessel - - - } Are the approved plans of boiler and superheater forwarded herewith yes
(If not state date of approval.)
Total No. of visits 6

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
Boiler efficiently installed in the vessel & safety valves adjusted
under steam

Survey Fee £ 6 : 6 : 0 When applied for, MONTHLY A/C. 192
Travelling Expenses (if any) £ ✓ : : When received, 192

William B. Bates

W. E. Morrison

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 4 FEB 1927

Assigned See Report attached



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Foundation