

REPORT ON BOILERS.

No. 86043

6 AUG 1930

Received at London Office

Date of writing Report

19

When handed in at Local Office

15th Aug 1930

Port of

NEWCASTLE-ON-TYNE

No. in Reg. Book

Survey held at

Wallsend-on-Tyne

Date, First Survey

17 Jan 1927

Last Survey

1st August 1930

of the

New Steel S.S. Holmside

(Number of Visits

Gross 3433

Net 2038

Master

Built at

Blyth

By whom built

Cowpen D.D. & S.B. & Co. Ltd

Yard No.

248

When built

1930

Engines made at

Wallsend

By whom made

North Eastern Mar & Co. Ltd

Engine No.

2756

When made

1930

Boilers made at

Wallsend

By whom made

North Eastern Mar & Co. Ltd

Boiler No.

2756

When made

1930

Nominal Horse Power

298

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Ltd.

(Letter for Record

5.)

Total Heating Surface of Boilers

4968 sq ft

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

Two single ended

2 SB

Working Pressure

225 lbs

Tested by hydraulic pressure to

388 lbs

Date of test

12-6-30

No. of Certificate

447

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

54 1/2 sq ft

No. and Description of safety valves to each boiler

Two spring loaded

Area of each set of valves per boiler

per Rule 12.94

as fitted 14.13

Pressure to which they are adjusted

230 lbs

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

2'-9"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

3'-0"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

15'-5 15/16"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29 to 33 tons

Thickness

1 1/4"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end DR

long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams 9/16"

long. seams 1 1/16"

Pitch of rivets

4 1/4" 10 5/8"

Percentage of strength of circ. end seams

plate 63.9

rivets 46.7

Percentage of strength of circ. intermediate seam

plate 85.2

rivets 87.6

Percentage of strength of longitudinal joint

plate 85.2

rivets 87.6

Working pressure of shell by Rules

225.3 lbs.

Thickness of butt straps

outer 1 3/16"

inner 1 5/16"

No. and Description of Furnaces in each Boiler

3 corrugated (Brighton)

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

3'-9 3/4"

Length of plain part

top 1 1/2"

bottom 1 1/2"

Thickness of plates

crown 23/32"

bottom 3/32"

Description of longitudinal joint

weld

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

none

Working pressure of furnace by Rules

231 lbs

End plates in steam space: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/32"

Pitch of stays

1-10 1/2 x 1-9 3/4"

How are stays secured

double nuts

Working pressure by Rules

226 lbs

Tube plates: Material

front Steel

back Steel

Tensile strength

26 to 30 tons

Thickness

1 1/32"

Working pressure

27 3/32"

Mean pitch of stay tubes in nests

10 1/8"

Pitch across wide water spaces

1-2 1/2 x 4 1/2"

Working pressure

front 231 lbs

back 238.5 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

29 to 33 tons

Depth and thickness of girder

at centre

2 @ 11 x 4 1/8"

Length as per Rule

3'-0"

Distance apart

11 1/8"

No. and pitch of stays

in each

3 @ 8 1/8"

Working pressure by Rules

233 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

25/32"

Back

25/32"

Top

25/32"

Bottom

1"

Pitch of stays to ditto: Sides

8 1/8 x 11"

Back

9 x 10 1/2"

Top

8 1/8 x 11 1/8"

Are stays fitted with nuts or riveted over

Nuts

Working pressure by Rules

226 lbs

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/32"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

15/16"

Pitch of stays at wide water space

14 1/2 x 9"

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

248 lbs.

Main stays: Material

Steel

Tensile strength

29 to 33 tons

Diameter

At body of stay, or Over threads

3 1/2"

No. of threads per inch

6

Area supported by each stay

489"

Working pressure by Rules

229 lbs.

Screw stays: Material

Steel

Tensile strength

26 to 30 tons

Diameter

At turned off part, or Over threads

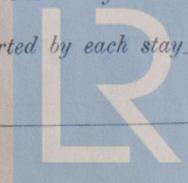
1 1/8"

No. of threads per inch

9

Area supported by each stay

94.5"



Lloyd's Register
FOUNDED 1820

Working pressure by Rules 226 lbs Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part.} 2 3/8"
 No. of threads per inch 9 Area supported by each stay 112.5" Working pressure by Rules 253 lbs
 Tubes: Material wrot Iron External diameter ^{Plain} 3 1/4" Thickness ^{L.S. 9} 3/4" & 5/16" No. of threads per inch 9
 Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules next 2 1/2 lbs Manhole compensation: Size of opening in
 shell plate 1-9" x 1-5" Section of compensating ring 12 1/2" x 1 1/2" No. of rivets and diameter of rivet holes 36 @ 1 9/16"
 Outer row rivet pitch at ends 10 3/4" Depth of flange if manhole flanged 4 1/2" Steam Dome: Material none
 Tensile strength _____ Thickness of shell _____ Description of longitudinal joint _____
 Diameter of rivet holes _____ Pitch of rivets _____ Percentage of strength of joint ^{Plate} _____
 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 _____ Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell _____

Type of Superheater North Eastern Smoke tube Manufacturers of ^{Tubes} Yates & Co. Birmingham.
 Number of elements 90 Material of tubes S.D. Steel ^{Steel castings} Yates & Co. Birmingham & S. C. & Co. Ltd
 Material of headers wrot steel Tensile strength 26 & 30 tons Thickness 1" Can the superheater be shut off and
 the boiler be worked separately no Is a safety valve fitted to every part of the superheater which can be shut off from the boiler yes
 Area of each safety valve 3.1416 Are the safety valves fitted with easing gear yes. Working pressure as per
 Rules 225 lbs. Pressure to which the safety valves are adjusted 230 lbs. Hydraulic test pressure:
 tubes 1500 lbs. ^{forgings} 675 lbs and after assembly in place 565 lbs. Are drain cocks or valves fitted
 to free the superheater from water where necessary yes.

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes
 The foregoing is a correct description,
W. B. Smith Manufacturer.

Dates of Survey ^{During progress of} work in shops - - -
 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 _____

Is this Boiler a duplicate of a previous case yes. If so, state Vessel's name and Report No. S. S. Burnhope.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
These Boilers have been built under special survey. Materials & workmanship good. Hydraulic tests satisfactory. They have been efficiently installed & fired in place examined under steam & safety valves adjusted.

Survey Fee £ : : When applied for, 19
 Travelling Expenses (if any) £ : : When received, 19

William B. Smith
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 12 AUG 1930
 Assigned see report attached

