

Rpt. 5a.

Newcastle-on-Tyne No. 84605.

# REPORT ON BOILERS.

No. 13744

Received at London Office

19 AUG 1929  
12 JUL 1929

Date of writing Report

9.7.1929

When handed in at Local Office

9.7.1929

Port of

MIDDLESBROUGH.

No. in Reg. Book.

Survey held at STOCKTON

Date, First Survey

8 March

Last Survey

9 July

1929

on the

donkey boiler for the ANGLO SAXON

(Number of Visits

Gross Tons

Net

Master

Built at

Sunderland

By whom built

Shaw Bros.

Yard No. 437

When built 1929.

Engines made at

By whom made

Engine No.

When made

Boilers made at

Stockton

By whom made

Riley Bros. (Boilermakers) Ltd

Boiler No. 5881

When made 1929.

Nominal Horse Power

Owners

Port belonging to

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appleby Iron Co.

(Letter for Record S.)

Total Heating Surface of Boilers

1330 sq. ft.

Is forced draught fitted

no.

Coal or Oil fired

Coal

No. and Description of Boilers

1 S.B.

Working Pressure 120 lbs

Tested by hydraulic pressure to

230 lbs.

Date of test

9.7.29

No. of Certificate

6725

Can each boiler be worked separately

Area of Firegrate in each Boiler

40 sq. ft.

No. and Description of safety valves to each boiler

Two spring loaded

Area of each set of valves per boiler

per Rule 12.3

as fitted 14.14 sq. ft.

Pressure to which they are adjusted

120 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

Boiler back 5

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

Fitted in deck

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

12' 0"

Length

10' 6"

Shell plates: Material

Steel

Tensile strength

28/32

Thickness

7/16

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

D.R.

long. seams

T.R.D.B.S. (4 rivets)

Diameter of rivet holes in

circ. seams

15/16

Pitch of rivets

3"

5 3/8"

Percentage of strength of circ. end seams

plate 68.6

rivets 54.6

Percentage of strength of circ. intermediate seam

plate

84.9

Percentage of strength of longitudinal seams

plate 86.3

combined 91.3

Working pressure of shell by Rules

120 lbs

Thickness of butt straps

outer 3/32"

inner 2/32"

No. and Description of Furnaces in each Boiler

2 Plain

Material

Steel

Tensile strength

26/30

Smallest outside diameter

4 1/2"

Length of plain part

6' 5 1/4"

Thickness of plates

3/32"

Description of longitudinal joint

welded

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

yes

Working pressure of furnace by Rules

120 lbs.

End plates in steam spaces

Material

Steel

Tensile strength

26/30

Thickness

25/32"

Pitch of stays

16 1/2" x 16 1/2"

How are stays secured

D.N.W.

Working pressure by Rules

120 lbs.

Tube plates: Material

front

Steel

Tensile strength

26/30

Thickness

25/32"

5/8"

Mean pitch of stay tubes in nests

10 1/4"

Pitch across wide water spaces

14 1/4" x 8 3/4"

Working pressure

front

149 lbs.

back

130 "

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

Distance apart

8 1/2"

No. and pitch of stays

20/32

at centre

7 1/8" (double)

Length as per Rule

31"

Working pressure by Rules

128 lbs.

Tensile strength

26/30

Thickness: Sides

9/16

Back

3/2

Top

9/16

Bottom

1 1/8"

Pitch of stays to ditto: Sides

9 1/2" x 8 1/2"

Back

10" x 9 3/4"

Top

9 1/2" x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

124 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

25/32"

132"

Thickness

25/32"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

25/32"

132"

Pitch of stays at wide water space

14 1/4" x 9 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

166 lbs.

Main stays: Material

Steel

Tensile strength

28/32

Area supported by each stay

268 sq. in.

Diameter

At body of stay,

2 1/4"

No. of threads per inch

6

Working pressure by Rules

129 lbs.

Screw stays: Material

Steel

Tensile strength

26/30

Area supported by each stay

80 1/4 sq. in.

Diameter

At turned off part,

1 3/8"

No. of threads per inch

9

Working pressure by Rules

129 lbs.

Screw stays: Material

Steel

Tensile strength

26/30

Area supported by each stay

80 1/4 sq. in.

Diameter

At turned off part,

1 3/8"

No. of threads per inch

9

Working pressure by Rules

129 lbs.

Screw stays: Material

Steel

Tensile strength

26/30

Area supported by each stay

80 1/4 sq. in.

Diameter

At turned off part,

1 3/8"

No. of threads per inch

9

Working pressure by Rules

129 lbs.

Screw stays: Material

Steel

Tensile strength

26/30

Area supported by each stay

80 1/4 sq. in.

Diameter

At turned off part,

1 3/8"

No. of threads per inch

9

Working pressure by Rules

129 lbs.

Screw stays: Material

Steel

Tensile strength

26/30

Area supported by each stay

80 1/4 sq. in.



Type of Superheater		Manufacturers of <sup>Tubes</sup> <del>Steel castings</del>	Internal diameter and thickness of tubes
Number of elements	Material of tubes	Tensile strength	Thickness
Material of headers			
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	and after assembly in place		Are drain cocks or valves fitted
to free the superheater from water where necessary			

*The foregoing is a correct description,*

Dates of Survey { During progress of work in shops -- 1929-1930  
 while building { During erection on board vessel ---  
 Are the approved plans of boiler and super boiler forwarded herewith (If not state date of approval.)  
 Total No. of visits

This boiler is a duplicate of Mr. Riley's No. 5654 (Lab. Rpt 12775).  
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 installed at Sunderland.

Secured on board, tested under steam & safety valves adjusted  
W. H. D. J. Thadaro

*Engineer Surveyor to Lloyd's Register of Shipping.*

TUE. 20 AUG 1925

*Assigned*

No Nwc. Jt y. No Subos  
I All the Boys

