

REPORT ON BOILERS.

No. 82006

Received at London Office 10 NOV 1927

Date of writing Report

192

When handed in at Local Office

10th Nov

1927

Port of Newcastle-on-Tyne

No. in Survey held at

Wallsend-on-Tyne

Date, First Survey

21st March

Last Survey

3rd Nov.

1927

No. in

Book.

on the

New Steel S.S. British Progress.

(Number of Visits

Gross

4581

Tons

Net

2639

Master

Built at

Walker

By whom built

Armstrong & Co Ltd

Yard No.

1026

When built

1927

Engines made at

Wallsend

By whom made

Wallsend Slipway & Eng Co Ltd

Engine No.

874

When made

1927

Boilers made at

Wallsend

By whom made

Wallsend Slipway & Eng Co Ltd

Boiler No.

874

When made

1927

Nominal Horse Power

1122

Owners

British Tanker Co Ltd

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY~~ OR ~~DONKEY~~.

Manufacturers of Steel

Steel Coy of Scotland Ltd.

(Letter for Record

S.

Total Heating Surface of Boilers

5538

Is forced draught fitted

yes

Coal or Oil fired

oil

No. and Description of Boilers

Two single ended.

Working Pressure

200 lbs

Tested by hydraulic pressure to

350 lbs

Date of test

29.11.27

No. of Certificate

149

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

0.5 only

No. and Description of safety valves to each boiler

Two spring loaded

Area of each set of valves per boiler

per Rule

19.4

as fitted

Pressure to which they are adjusted

205 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

2'-3"

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

2'-0"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

15'-9 5/16"

Length

12'-0"

Shell plates: Material

Steel

Tensile strength

30 to 34 tons

Thickness

1 3/8"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

D.R

Long. seams

T.R.D. B.S.

Diameter of rivet holes in

circ. seams

long. seams

1 3/8"

Pitch of rivets

3.94

9 1/4"

Percentage of strength of circ. end seams

plate

65.7

rivets

46.8

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

85.1

rivets

85.75

Working pressure of shell by Rules

201 lbs.

Thickness of butt straps

outer

1 3/8"

inner

1 3/8"

No. and Description of Furnaces in each Boiler

Three corrugated (Dighton)

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

3'-11 1/4"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

2 1/8"

Description of longitudinal joint

weld.

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

none

Working pressure of furnace by Rules

203 lbs.

End plates in steam space: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 3/8"

Pitch of stays

21 x 20 1/2"

How are stays secured

Double nuts

Working pressure by Rules

206 lbs

Tube plates: Material

front

back

Steel

Tensile strength

26 to 30 tons

Thickness

1 3/16"

Lean pitch of stay tubes in nests

1 1/2" x 10 1/8"

Pitch across wide water spaces

13 1/2" x 1 1/4"

Working pressure

front

212 lbs

back

270 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

28 to 32 tons

Depth and thickness of girder

centre

2 @ 9 3/8" x 3 1/4"

Length as per Rule

2'-8"

Distance apart

9 3/4"

each

3 @ 1 1/2"

Working pressure by Rules

204 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

1 1/16"

Back

8 3/8" x 1 3/4"

Top

10" x 1 1/16"

Are stays fitted with nuts or riveted over

Both

Pitch of stays to ditto: Sides

10" x 1 1/16"

Back

8 3/8" x 1 3/4"

Top

10" x 1 1/16"

Working pressure by Rules

207 lbs

Working pressure by Rules

207 lbs

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/8"

Thickness

1 1/8"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/8"

Pitch of stays at wide water space

14" x 8 3/8"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

230 lbs

Main stays: Material

Steel

Tensile strength

28 to 32 tons

Diameter

At body of stay,

3 1/2"

Over threads

No. of threads per inch

6.

Working pressure by Rules

224 lbs

Screw stays: Material

Steel

Tensile strength

26 to 30 tons

Diameter

At turned off part,

1 1/2"

Over threads

No. of threads per inch

9

Working pressure by Rules

224 lbs

Screw stays: Material

Steel

Tensile strength

26 to 30 tons

Diameter

At turned off part,

1 1/2"

Over threads

No. of threads per inch

9

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Foundation

Working pressure by Rules 20 1/2 lbs Are the stays drilled at the outer ends no Margin stays: Diameter 1 3/4" ^{At turned off part.}
 No. of threads per inch 9 Area supported by each stay 89.5 sq" Working pressure by Rules 20 1/2 lbs
 Tubes: Material Iron External diameter 2 1/2" Thickness 3/16" No. of threads per inch 9
 Pitch of tubes 3 3/4" x 3 7/8" Working pressure by Rules 23 1/2 lbs Manhole compensation: Size of opening 4 1/2" x 1 3/8"
 shell plate 20" x 16" Section of compensating ring 22" x 1 3/8" No. of rivets and diameter of rivet holes 44" x 1 3/8"
 Outer row rivet pitch at ends 9 1/4" Depth of flange if manhole flanged 3 1/8" 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
 Internal diameter Working pressure by Rules Thickness of crown No. and diameter
 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 none Manufacturers of Tubes
 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 yes.
 FOR THE WALLSEND SHIPWAY & ENGINEERING CO. LIMITED
 The foregoing is a correct description,
 Signature
 Manufacture

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

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 the vessel & safety valves adjusted under steam.

Survey Fee ... £ : : When applied for, 192
 Travelling Expenses (if any) £ : : When received, 192

Signature
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 15 NOV 1927
 Assigned See P. 6 rph attached