

REPORT ON BOILERS.

Sld. No. 32275

Mab. No. 16141

OCT 21 1937

Received at London Office

Date of writing Report

1937

When handed in at Local Office

20.10.1937

Port of

Middlesbrough

No. in Survey held at
Reg. Book.

Stockton

Date, First Survey

23 July

Last Survey

13 Oct

1937

on the

M/V "POZARICA"

(Number of Visits)

Gross

1893

Tons

Net 838

Master

Built at

Sunderland

By whom built

Wm. Leach & Sons Ltd.

Yard No.

634

When built

1938

Engines made at

Sunderland

By whom made

Wm. Dorford & Sons Ltd.

Engine No.

634

When made

1938

Boiler made at

Stockton

By whom made

Stockton C.E. & Riley Boilers Ltd.

Boiler No.

6269

When made

1937

Nominal Horse Power

734

Owners

MacAndrews & Co. Ltd.

Port belonging to

London.

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

Manufacturers of Steel

Steel Company of Scotland.

(Letter for Record

S

Total Heating Surface of Boilers

1180 sq. ft.

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

Working Pressure

120 lbs.

Tested by hydraulic pressure to

230

Date of test

13.10.37

No. of Certificate

6919

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Two direct Spring (Imp. High Lift)

Area of each set of valves per boiler

{ per Rule
as fitted5.4 sq. ft.
6.28 sq. ft.

Pressure to which they are adjusted

120

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

Yes

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

1'-6"

Yes

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

10'-6"

Length

10'-6"

Shell plates: Material

Steel

Tensile strength

29/33

Thickness

7/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

{ end
inter.

3"

long. seams

T.R. D.B.S.

Diameter of rivet holes in

{ circ. seams
long. seams15/16
13/16

Pitch of rivets

{

3"

5/16"

Percentage of strength of circ. end seams

{ plate
rivets68.7
43.8

Percentage of strength of circ. intermediate seam

{ plate
rivets97.7
83.9

Percentage of strength of longitudinal joint

{ plate
rivets
combined97.7
83.9

Working pressure of shell by Rules

126

Thickness of butt straps

{ outer
inner1/2
7/8

No. and Description of Furnaces in each Boiler

2 cf.

Material

Steel

Tensile strength

26/30

Smallest outside diameter

2'-0"

2'-10"

Length of plain part

{ top
bottom

Yes

Thickness of plates

{ crown
bottom

3/8

Description of longitudinal joint

weld

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

Yes

Working pressure of furnace by Rules

154

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

7/8

Pitch of stays 18 x 19 (mean)

How are stays secured

D.N. & W.

Working pressure by Rules

127/142

Tube plates: Material

{ front
back

S

Tensile strength

26/30

Thickness

{

13/16

Mean pitch of stay tubes in nests

10 1/4"

Pitch across wide water spaces

14 x 7 1/2"

Working pressure

{ front
back210
225

Girders to combustion chamber tops: Material

S

Tensile strength

28/32

Depth and thickness of girder

at centre

1 1/2 x 7/8 double

Length as per Rule

2'-4 3/8"

Distance apart

8 3/4"

No. and pitch of stays

in each

2 x 9"

Working pressure by Rules

127

Combustion chamber plates: Material

S

Tensile strength

26/30

Thickness: Sides

19/32

Back

7/16

Top

19/32

Bottom

19/32

Pitch of stays to ditto: Sides

9 x 9 1/2"

Back

9 x 8 1/2"

Top

9 x 8 3/4"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

141

Front plate at bottom: Material

S

Tensile strength

26-30

Thickness

7/8

Lower back plate: Material

S

Tensile strength

26-30

Thickness

7/8

Pitch of stays at wide water space

14 x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

233

Main stays: Material

S

Tensile strength

28-32

Diameter

{ At body of stay,
or
Over threads

2 7/8

No. of threads per inch

6

Area supported by each stay

378

Working pressure by Rules

131

Screw stays: Material

S

Tensile strength

26-30

Diameter

{ At turned off part,
or
Over threads

1 3/8

No. of threads per inch

9

Area supported by each stay

75 sq. in.

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Working pressure by Rules **135**. Are the stays drilled at the outer ends ☒ Margin stays: Diameter { At turned off part, or Over threads **1 1/2** Working pressure by Rules **136**.

No. of threads per inch **9**. Area supported by each stay **91.7** Thickness { **10 5/16** No. of threads per inch **9**.

Tubes: Material **Lap Weld Iron** External diameter { Plain **2 1/2** Stay **2 1/2** Working pressure by Rules **P 175 S 189**. Manhole compensation: Size of opening in shell plate **20 x 16**. Section of compensating ring **7 x 7/8** No. of rivets and diameter of rivet holes **36** **1 1/4**.

Pitch of tubes **3 3/4** **3 7/8** Working pressure by Rules **P 175 S 189**. Manhole compensation: Size of opening in shell plate **20 x 16**. Section of compensating ring **7 x 7/8** No. of rivets and diameter of rivet holes **36** **1 1/4**.

Outer row rivet pitch at ends **6"** Depth of flange if manhole flanged ☒ Steam Dome: Material

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 Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater

Number of elements Material of tubes Manufacturers of { Tubes Steel castings 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** and on behalf of **Stockton Chemical Engineers & Riley Rollers Ltd** The foregoing is a correct description, **G. H. Riley** Manufacturer.

Dates of Survey { During progress of work in shops - - - **1937: July 23 Aug 13 Sep 2 28 29 Oct 13** Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval) **1.2.37**

while building { During erection on board vessel - - -

Total No. of visits **6**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

The materials & workmanship are good.

The boiler has been made under special survey in accordance with the approved plan & the Requirements of the Rules.

On completion the boiler was examined under 230 lbs sq. hydraulic pressure & found sound & tight and it has been forwarded to Sunderland to be fitted on board.

This boiler has been securely fixed on board the vessel, examined under steam & safety valves adjusted in accordance with Rule requirements.

For recommendation please see Memo. Rpt.

Survey Fee **£ 8 17 0** When applied for, **20.10.1937**

Travelling Expenses (if any) **£ 7 17 0** When received, **28 DEC. 1937**

Doct. Hasen.

Re Moffitt

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **TUE 18 JAN 1938**

Assigned **See Std. F.E. 32275**

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Is a report also sent on the Hull of the Ship?

[2m.1234.- Copyable Ink.]