

## REPORT ON BOILERS.

No. 17344

Received at London Office

14 APR 1934

Date of writing Report

11 April 1934

When handed in at Local Office

193

Port of

West Hartlepool

No. in  
Reg. Book.

Survey held at

West Hartlepool

Date, First Survey

17 Febry

Last Survey

10 April 1934

(Number of Visits

20

Gross

4815

Tons

Net

2978

8001 on the

Steel Sc "WILLOWPOOL"

Master

Built at

Stockton

By whom built

Ropner & Brereton  
(Stockton) Ltd.

Yard No.

When built

1925

Engines made at

Stockton

By whom made

Blair &amp; Co Ltd.

Engine No.

When made

1925

Boilers made at

By whom made

Boiler No.

When made

1925

Nominal Horse Power

437

Owners

Pool Shipping Co. Ltd.

Port belonging to

West Hartlepool

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

Manufacturers of Steel

(Letter for Record

Total Heating Surface of Boilers

Is forced draught fitted

Coal or Oil fired

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Area of each set of valves per boiler

per Rule  
as fitted

Pressure to which they are adjusted

Are they fitted with easing gear

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia. of boilers

Length

Shell plates: Material

Tensile strength

Thickness

Are the shell plates welded or flanged

Description of riveting: circ. seams

end

inter.

Long. seams

Diameter of rivet holes in

circ. seams

long. seams

Pitch of rivets

Percentage of strength of circ. end seams

plate

rivets

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joints

plate

rivets

Working pressure of shell by Rules

Thickness of butt straps

outer

inner

No. and Description of Furnaces in each Boiler

Material

Tensile strength

Smallest outside diameter

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

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

Working pressure of furnace by Rules

End plates in steam space: Material

Tensile strength

Thickness

Pitch of stays

How are stays secured

Working pressure by Rules

Tube plates: Material

front

back

Tensile strength

Thickness

Mean pitch of stay tubes in nests

Pitch across wide water spaces

Working pressure

front

back

Girders to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder

at centre

Length as per Rule

Distance apart

No. and pitch of stays

in each

Working pressure by Rules

Combustion chamber plates: Material

Tensile strength

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

Are stays fitted with nuts or riveted over

Working pressure by Rules

Front plate at bottom: Material

Tensile strength

Thickness

Lower back plate: Material

Tensile strength

Thickness

Pitch of stays at wide water space

Are stays fitted with nuts or riveted over

Working Pressure

Main stays: Material

Tensile strength

Diameter

At body of stay,

or

Over threads

No. of threads per inch

Area supported by each stay

Working pressure by Rules

Screw stays: Material

Tensile strength

Diameter

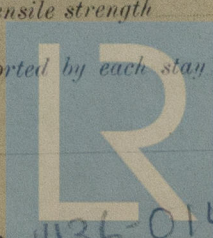
At turned off part,

or

Over threads

No. of threads per inch

Area supported by each stay



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Foundation

W436-0144



Working pressure by Rules \_\_\_\_\_ Are the stays drilled at the outer ends \_\_\_\_\_ Margin stays: Diameter { At turned off part, or Over threads \_\_\_\_\_

No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_

Tubes: Material \_\_\_\_\_ External diameter { Plain Stay \_\_\_\_\_ Thickness { \_\_\_\_\_ No. of threads per inch \_\_\_\_\_

Pitch of tubes \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_ Manhole compensation: Size of opening in shell plate \_\_\_\_\_ Section of compensating ring \_\_\_\_\_ No. of rivets and diameter of rivet holes \_\_\_\_\_

Outer row rivet pitch at ends \_\_\_\_\_ 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 \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_

How connected to shell \_\_\_\_\_ Inner radius of crown \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_

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 *Smoke tube* Manufacturers of Tubes *Stewart & Lloyd Glasgow* *Linnington Steel Foundry Leyland Lancs*

Number of elements *44 (each boiler)* Material of tubes *Solid drawn steel* Internal diameter and thickness of tubes *1 9/16 in. 1 3/16 in.*

Material of headers *Mild steel* Tensile strength *26-30 tons* Thickness *1 7/16 in. mean* Can the superheater be shut off and the boiler be worked separately *Yes.* 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 *1.465 sq. in.* Are the safety valves fitted with easing gear *Yes.* Working pressure as per Rules *180 lbs per square inch* Pressure to which the safety valves are adjusted *190 lbs per square inch* Hydraulic test pressure: tubes *1250 lbs per square inch* castings *600 lbs per sq. inch* and after assembly in place *1000 lbs per sq. inch* Are drain 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 ☒

The foregoing is a correct description, ☒ Manufacturer \_\_\_\_\_

Dates of Survey { During progress of work in shops - - *1941 Feb 1, 5, 6, 7, 8, 12, 13, 14, 15, 19, 20* Are the approved plans of boiler and superheater forwarded herewith *No.* (If not state date of approval.) *2-10-33*

while building { During erection on board vessel - - - } Total No. of visits \_\_\_\_\_

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *The smoke tube superheaters have been constructed in accordance with the approved plans and are fitted to each main boiler. The materials and workmanship have been found good.*

Survey Fee ... *See In chy Rpt.* When applied for, 192

Travelling Expenses (if any) £ : : When received, 192

*J. Brooke Smith*  
Engineer Surveyor to Lloyd's Register of Shipping.