

REPORT ON BOILERS.

No. 95095

Date of writing Report

19

When handed in at Local Office

3/5/1937

Received at London Office

JUN -1 1937

Port of

NEWCASTLE-ON-TYNE

No. in
Reg. Book.

Survey held at

South Shields

Date, First Survey

11 May 1936

Last Survey

17 May 1937

87515 on the

S. S. BALTISTAN

(Number of Visits)

Tons

Gross 6803.46

Net 4194.01

Master H. P. Peefe

Built at

S. Shields

By whom built

J. Readhead & Sons Ltd No. 508 When built 1937

Engines made at

South Shields

By whom made

J. Readhead & Sons Ltd

Engine No. 508

When made 1937

Boilers made at

South Shields

By whom made

J. Readhead & Sons Ltd

Boiler No. 508

When made 1937

Nominal Horse Power

Owners Strick Line (1923) Ltd

Port belonging to

London

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

Manufacturers of Steel

Steel Company of Scotland Ltd

Total Heating Surface of Boilers

1994 sq

Is forced draught fitted

Yes

(Letter for Record

S

No. and Description of Boilers

One single ended multitubular

Coal or Oil fired

Both

Tested by hydraulic pressure to

380 lbs

Date of test

16-9-36

No. of Certificate

688

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

52 sq

No. and Description of safety valves to each boiler

2 Double spring loaded (Giant H.L.)

Area of each set of valves per boiler

{per Rule

7.06 sq

{as fitted

7.10

Pressure to which they are adjusted

220 lbs

Are they fitted with easing gear

Yes

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

2'-0"

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

2'-7"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

13'-6 3/8"

Length

12'-0"

Shell plates: Material

S.W. Steel

Tensile strength

29-33 lbs

Thickness

15/16"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end D.R.L.J.

inter.

long. seams

T.R.D.B.S.

Diameter of rivet holes in

{circ. seams

1 3/8"

{long. seams

1 3/8"

Pitch of rivets

4 1/4"

9 1/4"

Percentage of strength of circ. end seams

{plate

67.6

{rivets

42.2

Percentage of strength of circ. intermediate seam

{plate

95.13

{rivets

90.6

Percentage of strength of longitudinal joint

{plate

95.13

{rivets

90.6

{combined

88.42

Working pressure of shell by Rules

221.2 lbs

Thickness of butt straps

{outer

1"

{inner

1 1/8"

No. and Description of Furnaces in each Boiler

3 Brighton Type

Material

S.W. Steel

Tensile strength

26-30 lbs

Smallest outside diameter

3'-3"

Length of plain part

{top

1'-0"

{bottom

1'-0"

Thickness of plates

{crown

5/8"

{bottom

5/8"

Description of longitudinal joint

Butt

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

Working pressure of furnace by Rules

233 lbs

End plates in steam space: Material

S.W. Steel

Tensile strength

26-30 lbs

Thickness

1 1/8"

Pitch of stays

19 x 17"

How are stays secured

Double nuts, washers outside (1" dia x 1" thick)

Working pressure by Rules

233 lbs

Tube plates: Material

{front

S.W. Steel

{back

S.W. Steel

Tensile strength

26-30 lbs

Thickness

15/16"

13/16"

Mean pitch of stay tubes in nests

9 5/8"

Pitch across wide water spaces

14"

Working pressure

{front

224 lbs

{back

255 lbs

Girders to combustion chamber tops: Material

S.W. Steel

Tensile strength

29-33 lbs

Depth and thickness of girder

at centre

9 x 1 3/4"

Length as per Rule

2'-9"

Distance apart

9 13/16"

No. and pitch of stays

in each

2 @ 9 1/8"

Working pressure by Rules

225 lbs

Combustion chamber plates: Material

S.W. Steel

Tensile strength

26-30 lbs

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

7/8"

Pitch of stays to ditto: Sides

9 x 9 1/8"

Back

10 x 8 3/4"

Top

9 1/8 x 9 13/16"

Are stays fitted with nuts or riveted over

Nuts

Working pressure by Rules

221 lbs

Front plate at bottom: Material

S.W. Steel

Tensile strength

26-30 lbs

Thickness

15/16"

Lower back plate: Material

S.W. Steel

Tensile strength

26-30 lbs

Thickness

7/8"

Pitch of stays at wide water space

14 x 8 3/4"

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

228 lbs

Main stays: Material

S.W. Steel

Tensile strength

28-32 lbs

Diameter

{At body of stay,

3 5/8"

{Over threads

No. of threads per inch

6

Area supported by each stay

332.5 sq

Working pressure by Rules

221 lbs

Screw stays: Material

S.W. Steel

Tensile strength

26-30 lbs

Diameter

{At turned off part,

1.875"

{Over threads

No. of threads per inch

9

Area supported by each stay

89.5 sq

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Working pressure by Rules 240 lbs Are the stays drilled at the outer ends ☒ Margin stays: Diameter ^{At turned off part.} 2"
No. of threads per inch 9 Area supported by each stay 107.50 Working pressure by Rules 229 lbs
Tubes: Material Iron External diameter ^{Plain} 3" Thickness ^{Stay} 3/8" No. of threads per inch 9
Pitch of tubes 11 1/2" x 8 1/4" Working pressure by Rules 246 lbs Manhole compensation: Size of opening in
shell plate 16" x 12" Section of compensating ring 8" x 15 1/16" No. of rivets and diameter of rivet holes 28 x 1 3/8" dia
Outer row rivet pitch at ends 9 1/4" 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} ☒
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 The Superheater Co. Ltd Manufacturers of ^{Tubes} See separate certificates
Number of elements 53 Material of tubes S.S. Steel Internal diameter and thickness of tubes 16 1/4" - 2 1/2" m
Material of headers Forged Steel Tensile strength ☒ Thickness ☒ 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 3.140" Are the safety valves fitted with easing gear Yes Working pressure as per
Rules 220 lbs Pressure to which the safety valves are adjusted 225 lbs Hydraulic test pressure:
tubes 1000 lbs forgings and castings 660 lbs and after assembly in place 450 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,
For JOHN READHEAD & SONS, LTD Manufacturer.

Dates of Survey ^{During progress of} See reply Report Are the approved plans of boiler and superheater forwarded herewith Yes
^{while} See reply Report (If not state date of approval.)
^{building} See reply Report Total No. of visits See reply Report
CHAIRMAN & MANAGING DIRECTOR.

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. ARMANISTAN. N° 94636

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

The boiler has been built under special survey in accordance with
rule requirements & approved plans. Materials & workmanship are good
Hydraulic test satisfactory. It has been efficiently installed & fixed
in vessel, examined under steam & the safety valves adjusted under
steam to the approved pressure.

Survey Fee ... £ See reply Report When applied for, 19
Travelling Expenses (if any) £ See reply Report When received, 19

J. H. Matthews
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 4 JUN 1937

Assigned

See NWC 76 95095



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