

REPORT ON BOILERS.

No. 99755

- 9 SEP 1941

Received at London Office

5a.

1.5 of writing Report

19

When handed in at Local Office

5/9/41

Port of

NEWCASTLE-ON-TYNE

in Survey held at

South Shields

Date, First Survey

24 Dec 1940

Last Survey

26 August 1941

52 on the

S.S. EMPIRE SCOTT

(Number of Visits)

Tons

Gross 6150.37

Net 4185.87

at S. Shields

By whom built

J. Readhead & Sons Ltd

Yard No.

523

When built

1941

es made at

South Shields

By whom made

J. Readhead & Sons Ltd

Engine No.

523

When made

1941

rs made at

South Shields

By whom made

J. Readhead & Sons Ltd

Boiler No.

523

When made

1941

nal Horse Power

Owners

Ministry of War Transport

Port belonging to

S. Shields

LTITUBULAR BOILERS—MAIN, ~~AUXILIARY~~ OR ~~DONKEY~~

facturers of Steel

The Steel Company of Scotland Ltd

(Letter for Record)

S

Heating Surface of Boilers

5486 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

Coal

nd Description of Boilers

2 Single Ended Multitubular

Working Pressure

220 lb/sq in

l by hydraulic pressure to

380 lb/sq in

Date of test

P.30.5.41

No. of Certificate

P.900

Can each boiler be worked separately

Yes

of Firegrate in each Boiler

60 sq ft

No. and Description of safety valves to each boiler

2 Double Spring Loaded

(A. R. L. J.)

of each set of valves per boiler

per Rule

9.72 sq ft

as fitted

9.8 sq ft

Pressure to which they are adjusted

220 lb/sq in

Are they fitted with easing gear

Yes

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

Yes

est distance between boilers or uptakes and bunkers or woodwork

2-7"

Is oil fuel carried in the double bottom under boilers

No

est distance between shell of boiler and tank top plating

2-2 1/2"

Is the bottom of the boiler insulated

Yes

st internal dia. of boilers

15'-6"

Length

11'-9"

Shell plates: Material

S.M. Steel

Tensile strength

29-33 Tons/sq in

ness

1 1/2"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

D.R.L.J.

seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

1 1/2"

long. seams

1 1/2"

Pitch of rivets

4 1/4"

10"

ntage of strength of circ. end seams

plate

64.8

rivets

44.0

Percentage of strength of circ. intermediate seam

plate

85.0

rivets

87.6

ntage of strength of longitudinal joint

plate

85.0

rivets

87.6

combined

87.5

ness of butt straps

outer

13/16"

inner

1 1/8"

No. and Description of Furnaces in each Boiler

3 Deighton Type

ial

S.M. Steel

Tensile strength

26-30 Tons/sq in

Smallest outside diameter

3-9 1/8"

h of plain part

top

1 1/8"

bottom

1 1/8"

Thickness of plates

1 1/8"

Description of longitudinal joint

Yes

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

lates in steam space: Material

S.M. Steel

Tensile strength

26-30 Tons/sq in

Thickness

1 1/8"

Pitch of stays

20 1/2 x 20 1/4"

are stays secured

Double nuts and washers outside (1 1/2 dia x 1 thick)

plates: Material

front

S.M. Steel

Tensile strength

26-30 Tons/sq in

Thickness

1 1/8"

15/16"

1 1/8"

1 1/8"

pitch of stay tubes in nests

9 1/8"

Pitch across wide water spaces

14"

rs to combustion chamber tops: Material

S.M. Steel

Tensile strength

29-33 Tons/sq in

Depth and thickness of girder

8 1/2 x 1 3/4"

Length as per Rule

2-7 1/2"

Distance apart

9 1/8"

tre

22 9"

No. and pitch of stays

22 9"

Combustion chamber plates: Material

S.M. Steel

Tensile strength

26-30 Tons/sq in

Thickness

3/4"

3/4"

3/4"

Strength

26-30 Tons/sq in

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

7/8"

7/8"

of stays to ditto: Sides

9 1/2 x 9 3/8"

Back

9 1/8 x 9"

Top

9 x 9 1/8"

Are stays fitted with nuts or riveted over

Nuts

Nuts

Nuts

plate at bottom: Material

S.M. Steel

Tensile strength

26-30 Tons/sq in

Thickness

1 1/8"

1 1/8"

1 1/8"

1 1/8"

1 1/8"

1 1/8"

1 1/8"

ness

1 1/8"

Lower back plate: Material

S.M. Steel

Tensile strength

26-30 Tons/sq in

Thickness

7/8"

7/8"

7/8"

of stays at wide water space

14 x 9"

Are stays fitted with nuts or riveted over

Nuts

Nuts

Nuts

Nuts

Nuts

Nuts

Nuts

Nuts

stays: Material

S.M. Steel

Tensile strength

26-32 Tons/sq in

Thickness

3 1/2"

3 1/2"

3 1/2"

3 1/2"

3 1/2"

3 1/2"

3 1/2"

ter

At body of stay

3 1/2"

No. of threads per inch

6

Over threads

3 1/2"

No. of threads per inch

9

9

9

9

9

9

stays: Material

S.M. Steel

Tensile strength

26-30 Tons/sq in

Thickness

1 1/8"

1 1/8"

1 1/8"

1 1/8"

1 1/8"

1 1/8"

Are the stays drilled at the outer ends No ✓ Margin stays: Diameter { At turned off part, } 2" ✓
No. of threads per inch 9 ✓
Tubes: Material Iron External diameter { Plain 3" Stay 3" Thickness { 8.1.5.9. } No. of threads per inch 9 ✓
Pitch of tubes 11 1/2" x 8 1/2" ✓ Manhole compensation: Size of open shell plate 16" x 12" Section of compensating ring 8" x 1 1/2" No. of rivets and diameter of rivet holes 28 2 1/2" ✓
Outer row rivet pitch at ends 10" ✓ 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 ✓ Thickness of crown ✓ No. and diam ✓
stays ✓ Inner radius of crown ✓
How connected to shell ✓ Size of doubling plate under dome ✓ Diameter of rivet holes and of rivets in outer row in dome connection to shell ✓

Type of Superheater

Manufacturers of

Tubes
Steel forgings
Steel castings

Number of elements Material of tubes Internal diameter and thickness of tubes
Material of headers Tensile strength Thickness Can the superheater be shut 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
Pressure to which the safety valves are adjusted Hydraulic test pressure
tubes forgings and castings and after assembly in place Are drain valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes

FOR JOHN READHEAD & SONS LTD.
The foregoing is a correct description,

John Readhead
4.9.41

Manufact the

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

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. EMPIRE FRANKLIN. 9950

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

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

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

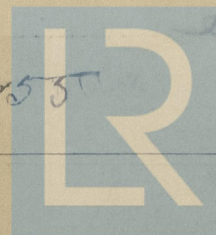
J. H. Matthews
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI. 19 SEP 1941

Assigned

See Nav. J.C. 99755



© 2020

Lloyd's Register
Foundation