

REPORT ON BOILERS.

Received at London Office

17 DEC 1924

Date of writing Report

192

When handed in at Local Office

16 12

192

Port of

Huddersburgh

No. in Survey held at

Stockton-on-Tees

Date, First Survey

2nd September

Last Survey

8th December 1924

90296 on the
SUPP

S/S. "Peterston"

(Number of Visits

14

Gross

4680

Net

2797

Master

Built at

Sunderland

By whom built

Bartram & Son Ltd

Yard No.

258

When built

1925

Engines made at

Stockton

By whom made

Hunn Blair & Co Ltd

Engine No.

1962

When made

1925

Boilers made at

Stockton

By whom made

Hunn Riley Bros Ltd

Boiler No.

5339

When made

1924

Nominal Horse Power

✓

Owners

Llangorse S/S Coy Ltd.

Port belonging to

London

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

Manufacturers of Steel

Hunn Th Steel Co of Scotland Ltd

(Letter for Record

(S)

Total Heating Surface of Boilers

1540 sq ft

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

One single ended

Working Pressure

180 lb

Tested by hydraulic pressure to

320

Date of test

8.12.24

No. of Certificate

6420

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

50 sq ft

No. and Description of safety valves to each boiler

2 direct Spring

Area of each set of valves per boiler

per Rule 9.87

as fitted 14.14

Pressure to which they are adjusted

185 lb

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 boiler

and bunkers or woodwork

(SIDES 14")
(BACK 22")

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

3-5"

Is the bottom of the boiler insulated

No

Largest internal dia. of boilers

12'-6"

Length

11'-0"

Shell plates: Material

Steel

Tensile strength

28-32

Thickness

1 1/2"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end D. Riv. Lap

long. seams

D. Butt - 3 Rivet

Diameter of rivet holes in

circ. seams 1 1/4"

long. seams

1 1/2"

Pitch of rivets

3 1/2" + 6 1/8"

Percentage of strength of circ. end seams

plate 63.0

rivets 43.0

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 85.6

rivets 90.1

combined 89.12

Working pressure of shell by Rules

180 lb

Thickness of butt straps

outer 16 x 25/32

inner 16 x 29/32

No. and Description of Furnaces in each Boiler

3 Dighton

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

36"

Length of plain part

top

bottom

Gravelly

Thickness of plates

crown 1/2"

bottom 1/2"

Description of longitudinal joint

Weld

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

none

Working pressure of furnace by Rules

200 lb

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

3 1/2"

Pitch of stays

17 x 15 1/2"

How are stays secured

Nuts & 9 1/2 x 1 1/8" long washers

Working pressure by Rules

182 lb

Tube plates: Material

front Steel

back Steel

Tensile strength

26-30 tons

Thickness

7/8"

23/32"

Mean pitch of stay tubes in nests

9 1/8"

Pitch across wide water

spaces

13 1/8 x 8 1/2"

Working pressure

front 203

back 187

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

9 1/4 x 1 1/2"

Length as per Rule

32"

Distance apart

10"

No. and pitch of stays

Tensile strength

26-30 tons

Thickness: Sides

4 1/4"

Back

2 1/2"

Top

4 1/4"

Bottom

4 1/4"

Pitch of stays to ditto: Sides

10 x 7 1/2"

Back

9 1/4 x 8 1/2"

Top

10 x 7 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

182 lb

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

7/8"

Pitch of stays at wide water space

13 1/8 x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

244

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

At body of stay, 2 3/8"

or Over threads 2 7/8"

No. of threads per inch

6

Area supported by each stay

267.75

Working pressure by Rules

186 lb

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part, 1 3/4"

or Over threads 1 3/4"

No. of threads per inch

9

Area supported by each stay

78.6

Working pressure by Rules 232 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 1/2" or Over threads 1 1/8" }
No. of threads per inch 9 Area supported by each stay 99.48 Working pressure by Rules 213
Tubes; Material iron External diameter { Plain 3 1/2" Stay 3" } Thickness { N: 8 - S: W: 9 } No. of threads per inch 9
Pitch of tubes 4 3/8" x 4 1/2" Working pressure by Rules 208 + 230 Manhole compensation: Size of opening in shell plate 20" x 16" Section of compensating ring 9" x 1 1/2" 2 1/2" 2 1/2" No. of rivets and diameter of rivet holes 48 @ 1 1/2"
Outer row rivet pitch at ends 7 1/2" Depth of flange if manhole flanged ✓ Steam Dome: Material iron
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 _____ Manufacturers of { Tubes _____ 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 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 _____

RIEY BROS. (BOILERMAKERS) LIMITED,

J. H. Shields Manufacturer.
SECRETARY

Dates of Survey { During progress of work in shops - - } 1924/Sept. 2, 4, 11, 18, 19, 26 Oct. 1, 9 Are the approved plans of boiler and superheater forwarded herewith ✓
while building { During erection on board vessel - - } 16, 20 Nov. 1, 7, 13, 21, 24, Dec. 2, 8 (If not state date of approval.)
Total No. of visits 14

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under Special Survey: is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results
The boiler will be fitted on board at this port

This boiler was placed on board at Middlesbrough, 10th

Donkey Boiler has now been efficiently secured in position, all necessary pipes have been fitted, safety valves adjusted under steam to 185 lbs. & easing gear fitted

G. Anderson

26/2/25

Survey Fee ... £ 10 : 5 : 0 When applied for, MONTHLY A/c. 192
Travelling Expenses (if any) £ ✓ : : When received, 192

Wm Morrison & Co. Ltd.
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 13 MAR 1925

Assigned _____



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Foundation