

REPORT ON BOILERS.

No. 28775

Received at London Office

MAR. 26 1924

Date of writing Report

192

When handed in at Local Office

25 MAR 1924

Port of

Sunderland

No. in Survey held at

Sunderland

Date, First Survey

Last Survey

22nd Nov 1924

6030 on the

new steel S/S USK BRIDGE

(Number of Visits)

Gross 2530
Net 1515

Master

Built at Burntisland

By whom built

Burntisland SBC Co

Yard No. 121

When built 1923

Engines made at

Sunderland

By whom made

North Eastern Marine Eng Co Ltd

Engine No.

2530

When made 1923

Boilers made at

Sunderland

By whom made

North Eastern Marine Eng Co Ltd

Boiler No.

272

When made 1923

Nominal Horse Power

Owners

W. Side S.S. Co Ltd (R. Jones & Co mgrs)

Port belonging to

Newport (mon)

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

John Spence & Sons Ltd

(Letter for Record 5)

Total Heating Surface of Boilers

588 sq ft

Is forced draught fitted

no

Coal or Oil fired

coal

No. and Description of Boilers

one single ended marine

Working Pressure

120

Tested by hydraulic pressure to

230

Date of test

21-24

No. of Certificate

3861

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

23.8 sq ft

No. and Description of safety valves to each boiler

two direct opening

Area of each set of valves per boiler

per Rule 5.44"

as fitted 6.28"

Pressure to which they are adjusted

125

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 boilers or uptakes and bunkers or woodwork

18"

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

2'-6"

Is the bottom of the boiler insulated

no

Largest internal dia. of boilers

9'-0"

Length

9'-1 3/4"

Shell plates: Material

steel

Tensile strength

28-32 tons

Thickness

9/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end DR

Long. seams

DRs. DR

Diameter of rivet holes in

circ. seams

3/4"

Pitch of rivets

3"

Percentage of strength of circ. end seams

plate 75

rivets 44

Percentage of strength of circ. intermediate seam

plate

Percentage of strength of longitudinal joint

plate 82

rivets 86.6

combined 93.7

Working pressure of shell by Rules

123

Thickness of butt straps

outer 9/16"

inner 9/16"

No. and Description of Furnaces in each Boiler

two plain

Material

steel

Tensile strength

26-30

Smallest outside diameter

2'-8 3/4"

Length of plain part

top 5'-4 1/2"

bottom 4'-9 1/2"

Thickness of plates

crown 3/32"

bottom 6/64"

Description of longitudinal joint

welded

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

none

Working pressure of furnace by Rules

131

End plates in steam space: Material

steel

Tensile strength

26-30

Thickness

7/8"

Pitch of stays

17x15"

How are stays secured

WN + W

Working pressure by Rules

135

End plates: Material

front steel

back "

Tensile strength

26-30

Thickness

7/8"

23/32"

Clear pitch of stay tubes in nests

10"

Pitch across wide water spaces

14 1/2"

Working pressure

front 130

back 184

Orders to combustion chamber tops: Material

steel

Tensile strength

28-32

Depth and thickness of girder

Centre

2 @ 6 1/2" x 3/4"

Length as per Rule

24"

Distance apart

12"

No. and pitch of stays

each

2 @ 8 1/2"

Working pressure by Rules

126

Combustion chamber plates: Material

steel

Tensile strength

26-30

Thickness: Sides

23/32"

Back

11/16"

Top

23/32"

Bottom

23/32"

Pitch of stays to ditto: Sides

12x12 1/2"

Back

11 1/2 x 11"

Top

12 x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

121

Front plate at bottom: Material

steel

Tensile strength

26-30

Thickness

7/8"

Lower back plate: Material

steel

Tensile strength

26-30

Thickness

7/8"

Pitch of stays at wide water space

15"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

175

Main stays: Material

steel

Tensile strength

28-32

Diameter

At body of stay, 2 1/8"

Over threads, "

No. of threads per inch

6

Area supported by each stay

2550"

Working pressure by Rules

148

Screw stays: Material

steel

Tensile strength

26-30

Diameter

At turned off part, 1 5/8"

Over threads, "

No. of threads per inch

9

Area supported by each stay

126.5"

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Working pressure by Rules 120 Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part,} 13/4"
 No. of threads per inch 9 Area supported by each stay 1490" Working pressure by Rules 121
 Tubes: Material Wrought Iron External diameter ^{Plain} 3 1/4" Thickness ^{9 WS} 5/16" No. of threads per inch 9
 Pitch of tubes 4 3/8" x 4 3/8" Working pressure by Rules 162 Manhole compensation: Size of opening in
 shell plate 16" x 20" Section of compensating ring 7" x 3/4" flanged No. of rivets and diameter of rivet holes 32 @ 29/32"
 Outer row rivet pitch at ends 5 3/4" Depth of flange if manhole flanged ✓ Steam Dome: Material none
 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 _____ Manufacturers of ^{Tubes} _____
 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 _____

The foregoing is a correct description,
 _____ Manufacturer.
 _____ Assistant Secretary

Dates of Survey ^{During progress of} Please see Machinery Report Are the approved plans of boiler and superheater forwarded herewith Yes
 while building ^{During erection on} Do board vessel - - - Total No. of visits _____
 (If not state date of approval.)

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The materials and workmanship are good.
The boiler has been constructed under special survey, satisfactorily fitted in
the stockhold and its safety valves adjusted under steam.

Survey Fee £ 4 : 4 : _____ When applied for, 25 MAR 1924
 Travelling Expenses (if any) £ _____ : _____ : _____ When received, 22-4-1924

S. Davis & R. J. Pasthope
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 20 JUN 1924 FRI 22 AUG 1924

Assigned _____



or when will it be sent to the Registrar of Shipping