

REPORT ON BOILERS.

No. 33576

12 JAN 1943

Received at London Office

Date of writing Report

19

When handed in at Local Office

5 Jan 1943

Port of

Sunderland.

No. in Reg. Book.

Survey held at

Sunderland

Date, First Survey

Last Survey

1st Jan 1943

on the

"STAN LODGE"

(Number of Visits)

Gross

5976.50

Tons

Net 4048.93

Built at

By whom built

Wm. Pickersill & Son Ld.

Yard No.

When built

Engines made at

Sunderland

By whom made

G. Black (1938) Ld.

Engine No.

When made

Boilers made at

Sunderland

By whom made

G. Black (1938) Ld.

Boiler No.

When made

Nominal Horse Power

496

Owners

Stanhope S.S. Co Ld.

Port belonging to

London.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appley, Dradingham Steel Co Ld.

(Letter for Record)

S.

Total Heating Surface of Boilers

1486 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

Coal.

No. and Description of Boilers

One Single Ended multitubular return tube marine

Working Pressure

220

Tested by hydraulic pressure to

380

Date of test

20/11/42

No. of Certificate

4464

Can each boiler be worked separately

-

Area of Firegrate in each Boiler

46 sq ft

No. and Description of safety valves to each boiler

Two direct Spring.

Area of each set of valves per boiler

per Rule 9.5 sq in

as fitted 9.8 sq in

Pressure to which they are adjusted

220

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

-

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

Yes.

Largest internal dia. of boilers

12' 9 1/2"

Length

11' 6" mean

Shell plates: Material

Steel

Tensile strength

30/34

Thickness

1 1/2" 64"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

DR Lap.

long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams 15/16"

long. seams 1 1/4"

Pitch of rivets

4.052" 8 1/2"

Percentage of strength of circ. end seams

plate 64.61

rivets 42.55

Percentage of strength of circ. intermediate seam

plate 85.29

rivets 86.21

Percentage of strength of longitudinal joint

plate 15/16"

rivets 84.83

Thickness of butt straps

outer 1 1/2"

inner 1 1/2"

No. and Description of Furnaces in each Boiler

Three Corrugated (Brighton)

Material

Steel

Tensile strength

26/30

Smallest outside diameter

3'-1"

Length of plain part

top

bottom

Thickness of plates

crown 19/32"

bottom 19/32"

Description of longitudinal joint

weld.

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

-

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

Front 15/32"

Back 13/16"

Pitch of stays 14 5/8" x 14 1/2"

How are stays secured

Double nuts.

Tube plates: Material

front Steel

back Steel

Tensile strength

26/30

Thickness

15/16"

13/16"

Mean pitch of stay tubes in nests

10 7/16"

Pitch across wide water spaces

14" x 8 1/4"

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

at centre

9 3/8" x 5/8" (2)

Length as per Rule

2' 4 1/2"

Distance apart

8 5/8"

No. and pitch of stays

in each

2 @ 10"

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

WING 9 1/2" x 3/4"

CENT. 8 3/8" x 9 3/4"

Back

CENT. 7 1/8" x 10"

Top

10" x 8 5/8"

Are stays fitted with nuts or riveted over

nuts.

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

1"

Pitch of stays at wide water space

14"

Are stays fitted with nuts or riveted over

nuts.

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay, 2 7/8"

or threads 2 6/8"

eff dia

Steel

No. of threads per inch

6

Screw stays: Material

Steel

Tensile strength

26/30.

Diameter

At turned off part, 1 3/4"

or Over threads 1 1/8"

(Backs)

(Wings)

No. of threads per inch

9.

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Are the stays drilled at the outer ends *No.* Margin stays: Diameter { At turned off part, *1 7/8"* or *1 2"* Over threads *9.*

No. of threads per inch *9.*

Tubes: Material *S.D. Steel* External diameter { Plain *3"* Stay *3"* Thickness { *8 wt.* *5/16"* *3/8"* No. of threads per inch *9.*

Pitch of tubes *4 1/4" x 4 1/8"* Manhole compensation: Size of opening in shell plate *16" x 12"* Section of compensating ring *1 3/64" x 8 1/8"* No. of rivets and diameter of rivet holes *38 @ 1 3/8"*

Outer row rivet pitch at ends *9 3/8"* 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 diameter of stays

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 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 off and the boiler be worked separately

Area of each safety valve Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Pressure to which the safety valves are adjusted Are the safety valves fitted with easing gear

tubes forgings and 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 22 inclusive for boilers been complied with *Yes.*

The foregoing is a correct description,
Geo. Clark (1888) Ltd.
Archib. J. Berry Manufacturer.

Dates of Survey { During progress of work in shops - - - *Please see Rpt. 4* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

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

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

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

This boiler has been constructed under Special Survey in accordance with the approved plan & the rules of the Society. The materials & workmanship are good. On completion the boiler was tested by hydraulic pressure of 380 lbs. & found tight & sound at that pressure. It has been securely fixed on board the vessel & safety valves adjusted to working pressure in accordance with rule requirements.

For recommendation please see Machinery Rpt.

Survey Fee £ *See Machinery Rpt.* When applied for, 19

Travelling Expenses (if any) £ When received, 19

W. H. Haslam
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned *See Std. F.E. 33576*