

REPORT ON BOILERS.

No. 44223

20 NOV 1933

Received at London Office

Date of writing Report

19

When handed in at Local Office

18 NOV 1933

19

Port of

HULL

No. in Reg. Book.

Survey held at

Hull.

Date, First Survey

16.8.33

Last Survey

17.11.1933

on the Steam Trawler "BASQUE"

(Number of Visits)

Gross 424.50

Net 162.32

Master

Built at

Bursley

By whom built

Cox, Nelson & Co. Ltd

Yard No.

581

When built

1933

Engines made at

Hull

By whom made

Charles & Holmes & Co. Ltd

Engine No.

4444

When made

1933

Boilers made at

Hull

By whom made

do

Boiler No.

4444

When made

1933

Nominal Horse Power

111

Owners

Sullivan Bros. Ltd

Port belonging to

Hull.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appley Iron Co. Ltd

(Letter for Record

S. ✓)

Total Heating Surface of Boilers

1940 Sq. ft

Is forced draught fitted

do

Coal or Oil fired

Coal ✓

No. and Description of Boilers

One single ended

Working Pressure

210 Lbs.

Tested by hydraulic pressure to

365 Lbs.

Date of test

18.10.33

No. of Certificate

3871

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

587 sq. ft

No. and Description of safety valves to each boiler

Two spring loaded.

Area of each set of valves per boiler

per Rule

10.8 sq. in.

Pressure to which they are adjusted

210 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

9 1/4"

Is oil fuel carried in the double bottom under boilers

✓

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

✓

Largest internal dia. of boilers

17 1/4"

Length

10'-8"

Shell plates: Material

Steel

Tensile strength

29/33 Tons.

Thickness

1 1/2"

Are the shell plates welded or flanged

Description of riveting: circ. seams

end

SR. ✓

long. seams

SR. ✓

Diameter of rivet holes in

circ. seams

1 3/8"

Pitch of rivets

3 3/4"

Percentage of strength of circ. end seams

plate

63.2

rivets

46.4

Percentage of strength of circ. intermediate seam

plate

✓

rivets

✓

Percentage of strength of longitudinal joint

plate

85.13

rivets

86.8

Working pressure of shell by Rules

212 Lbs.

Percentage of strength of longitudinal joint

combined

84.6

Thickness of butt straps

outer

1 1/2"

inner

1 5/8"

No. and Description of Furnaces in each Boiler

Three plain.

Material

Steel

Tensile strength

26/30 Tons.

Smallest outside diameter

42.5"

Length of plain part

top

4 1/2"

bottom

Thickness of plates

crown

5 3/4"

bottom

5 1/4"

Description of longitudinal joint

Welded

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

Working pressure of furnace by Rules

212 Lbs.

End plates in steam space: Material

Steel

Tensile strength

26/30 Tons.

Thickness

1 1/2"

Pitch of stays

17 1/4" x 18 1/4"

How are stays secured

Double nuts & washers.

Working pressure by Rules

212 Lbs.

Tube plates: Material

front

Steel

back

do

Tensile strength

26/30 Tons.

Thickness

1 5/8"

7/8"

Mean pitch of stay tubes in nests

10' 4"

Pitch across wide water spaces

14"

Working pressure

front

230 Lbs.

back

222 "

Girders to combustion chamber tops: Material

Steel

Tensile strength

29/33 Tons.

Depth and thickness of girder

at centre

10" x 1 3/4"

Length as per Rule

36 7/32"

Distance apart

9"

No. and pitch of stays

in each

3 @ 8"

Working pressure by Rules

224 Lbs.

Combustion chamber plates: Material

Steel.

Tensile strength

26/30 Tons.

Thickness: Sides

3/4"

Back

2 3/32"

Top

2 3/32"

Bottom

3/4"

Pitch of stays to ditto: Sides

10' x 8 1/2"

Back

9 7/8' x 8 1/4"

Top

9' x 8"

Are stays fitted with nuts or riveted over

nuts ✓

Working pressure by Rules

215 Lbs.

Front plate at bottom: Material

Steel

Tensile strength

26/30 Tons

Thickness

1 5/8"

Lower back plate: Material

Steel

Tensile strength

26/30 Tons

Thickness

7/8"

Pitch of stays at wide water space

14 1/2' x 8 1/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

211 Lbs.

Main stays: Material

Steel

Tensile strength

26/32 Tons

Diameter

At body of stay,

or

3 1/4"

No. of threads per inch

8

Area supported by each stay

360 sq. in.

Working pressure by Rules

220 Lbs.

Screw stays: Material

Steel

Tensile strength

26/30 Tons

Diameter

At turned off part,

or

1 3/4"

No. of threads per inch

16

Area supported by each stay

85 sq. in.

Working pressure by Rules $212 \frac{1}{2}$ Are the stays drilled at the outer ends *ho* Margin stays: Diameter $\left\{ \begin{array}{l} \text{At turn d off part,} \\ \text{or} \\ \text{Over threads} \end{array} \right. 17\frac{1}{8}'' \text{ r } 2''$
No. of threads per inch 10 Area supported by each stay 98 sq. in. Working pressure by Rules $217 \frac{1}{2}$
Tubes: Material *Iron* External diameter $\left\{ \begin{array}{l} \text{Plain} \\ \text{Stay} \end{array} \right. 3\frac{1}{2}''$ Thickness $\left\{ \begin{array}{l} 5\frac{1}{16}'' - 4\frac{1}{8}'' \end{array} \right.$ No. of threads per inch $9''$
Pitch of tubes $4\frac{3}{4}''$ Working pressure by Rules $215 \frac{1}{2}$ Manhole compensation: Size of opening in
shell plate $16' \times 12''$ Section of compensating ring $5\frac{1}{2} \text{ dia} \times 1\frac{1}{2}''$ No. of rivets and diameter of rivet holes $16 @ 1\frac{1}{2}''$
Outer row rivet pitch at ends $10\frac{1}{4}''$ Depth of flange if manhole flanged $3\frac{1}{4}''$ Steam Dome: Material *Steel*
Tensile strength $36\frac{1}{2} \text{ Tons}$ Thickness of shell $3\frac{1}{4}''$ Description of longitudinal joint *S.R. Lap.*
Diameter of rivet holes $1\frac{1}{2}''$ Pitch of rivets $2\frac{1}{4}''$ Percentage of strength of joint $\left\{ \begin{array}{l} \text{Plate } 54.0 \\ \text{Rivets } 43.8 \end{array} \right.$
Internal diameter $33''$ Working pressure by Rules $215 \frac{1}{2}$ Thickness of crown $7\frac{1}{8}''$ No. and diameter of
stays $2 @ 2\frac{1}{4}''$ Inner radius of crown $10\frac{1}{2}''$ Working pressure by Rules $215 \frac{1}{2}$
How connected to shell *Riveted* Size of doubling plate under dome $5\frac{1}{2} \text{ dia} \times 1\frac{1}{2}''$ Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell $1\frac{1}{2}'' @ 10\frac{1}{4}''$

Type of Superheater _____ Manufacturers of $\left\{ \begin{array}{l} \text{Tubes} \\ \text{Steel castings} \end{array} \right.$ _____
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 22 inclusive for boilers been complied with _____

The foregoing is a correct description.
FOR CHARLES D. HOLMES & CO., LTD.
J. D. Goff Manufacturer.

Dates of Survey $\left\{ \begin{array}{l} \text{During progress of} \\ \text{work in shops} \end{array} \right. \text{ } \left\{ \begin{array}{l} \text{while} \\ \text{building} \end{array} \right. \left\{ \begin{array}{l} \text{During erection on} \\ \text{board vessel} \end{array} \right. \text{ } \text{See machinery sp.}$
Are the approved plans of boiler and superheater forwarded herewith \checkmark
(If not state date of approval.)
Total No. of visits \checkmark

Is this Boiler a duplicate of a previous case *Yes* If so, state Vessel's name and Report No. *Reader No. 44200.*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under special survey & in accordance with the approved plan. The materials and workmanship are sound & good. It has been satisfactorily fitted on board, tried under working conditions, & its safety valves adjusted as above.*

The steel windows and iron report on the sister vessel "Reader"

Charge on engine report

Survey Fee $\text{£ } 100$: : : When applied for, 19

Travelling Expenses (if any) $\text{£ } 100$: : : When received, 19

John H. Mackinlay
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **TUE. 21 NOV 1933**

Assigned

See other report



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Foundation