

REPORT ON BOILERS.

No. 53344.

Received at London Office

7 APR 1946

of writing Report

10

When handed in at Local Office

10

Port of

Hull

in
Boat

Survey held at

Hull

Date, First Survey

3. 9. 45

Last Survey

11. 3.

1946

on the

"ST. BARTHOLOMEW"

(Number of Visits

35)

Tons

Gross 578.69

Net 213.86

at

Hull

By whom built

Bochran & Sons Ltd.

Yard No. 1309

When built

1946

nes made at

Hull

By whom made

Amos & Smith Ltd.

Engine No.

773

When made

ers made at

Hull

By whom made

Amos & Smith Ltd.

Boiler No.

773

When made

inal Horse Power

Owners

St. Andrews Ste. Fishing Co. Ltd.

Port belonging to

Hull

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Appley Foddingham & Colville

(Letter for Record

S

Heating Surface of Boilers

2,555 sqft

Is forced draught fitted

Yes

Coal or Oil fired

Coal

and Description of Boilers

One single end cylindrical multitubular

Working Pressure

225 lb

ed by hydraulic pressure to

388 lb

Date of test

11.1.46

No. of Certificate

4260 Can each boiler be worked separately

a of Firegrate in each Boiler

67.5 sqft

No. and Description of safety valves to each boiler

3 1/2" D.S. ordinary

a of each set of valves per boiler

per Rule

13.3 in

as fitted

19.24 in

Pressure to which they are adjusted

230 lb

Are they fitted with easing gear

Yes

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

llest distance between boilers or uptakes and bunkers or woodwork

15"

Is oil fuel carried in the double bottom under boilers

NONE

llest distance between shell of boiler and tank top plating

NONE

Is the bottom of the boiler insulated

No

greatest internal dia. of boilers

15' 9 1/16"

Length

11' 0"

Shell plates: Material

STEEL

Tensile strength

31-35 tons in²

Thickness

1 5/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

D.R. LAP

seams T.R.D.B.S.

Diameter of rivet holes in

circ. seams

1 5/32"

long. seams

1 1/2"

Pitch of rivets

3 7/8"

centage of strength of circ. end seams

plate

65%

rivets

45%

Percentage of strength of circ. intermediate seam

plate

84.3%

rivets

86.9%

centage of strength of longitudinal joint

plate

84.3%

rivets

86.9%

combined

85.9%

Thickness of butt straps

outer

1 5/32"

inner

1 9/32"

No. and Description of Furnaces in each Boiler

THREE DREIGHTON TYPE CORRUGATION

Material

STEEL

Tensile strength

26-30 TONS IN²

Smallest outside diameter

3' - 11 1/32"

Length of plain part

top

47"

bottom

64"

Thickness of plates

crown

47"

bottom

64"

Description of longitudinal joint

WELDED

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

NONE

l plates in steam space: Material

STEEL

Tensile strength

26-30 TONS IN²

Thickness

1 1/4"

Pitch of stays

19 1/4" x 18 5/8"

o are stays secured

Double nuts and washers

e plates: Material

front

Steel

back

"

Tensile strength

26-30 TONS IN²

Thickness

3 1/32"

29/32"

in pitch of stay tubes in nests

9 1/2" x 9 1/2"

Pitch across wide water spaces

14 1/4"

ders to combustion chamber tops: Material

STEEL

Tensile strength

29-33 TONS IN²

Depth and thickness of girder

centre

9" Two 7/8"

Length as per Rule

2' 8 1/4"

Distance apart

9 1/4"

No. and pitch of stays

each

THREE 7 1/2"

Combustion chamber plates: Material

STEEL

Tensile strength

26-30 TONS IN²

Thickness: Sides

23/32"

Back

23/32"

Top

1 1/16"

Bottom

15/16"

ch of stays to ditto: Sides

9 3/4" x 8"

Back

9 1/2" x 8 1/4"

Top

9 1/4" x 7 1/2"

Are stays fitted with nuts or riveted over

NUTS

nt plate at bottom: Material

STEEL

Tensile strength

26-30 TONS IN²

ckness

3 1/32"

Lower back plate: Material

STEEL

Tensile strength

26-30 TONS IN²

Thickness

29/32"

ch of stays at wide water space

14 1/2" x 9 3/4"

Are stays fitted with nuts or riveted over

NUTS

pping in stays: Material

STEEL

Tensile strength

28-32 TONS IN²

meter

At body of stay,

or

Over threads

3 3/8"

No. of threads per inch

6

ew stays: Material

STEEL

Tensile strength

26-30 TONS IN²

meter

At turned off part,

or

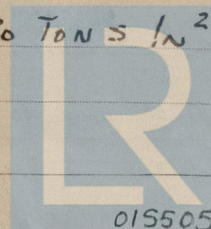
Over threads

1 3/4", 1 7/8", 2", 2 1/8"

No. of threads per inch

9

MARGIN



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Foundation

015505 - 015512 - 0014

"ST. BARTHOLOMEW"

Are the stays drilled at the outer ends **NO** ✓ Margin stays: Diameter { At turned off part, } 2", 2 1/8", 1 7/8".
 No. of threads per inch 9 ✓
 Tubes: Material **SEAMLESS STL.** External diameter { Plain 3 1/2" ✓ Stay 3 1/2" ✓ } Thickness { 7 W.G. 5/16", 3/8", 7/16" } No. of threads per inch 9 ✓
 Pitch of tubes 4 3/4" x 4 3/4" ✓ Manhole compensation: Size of opening in shell plate 16" x 12" ✓ Section of compensating ring 4'-11 1/4" DIA, 1 5/32" Thk. No. of rivets and diameter of rivet holes 118 - 1 1/2" ✓
 Outer row rivet pitch at ends 4'-6 3/4" PCD Depth of flange if manhole flanged 3 1/2" BOT. 3 1/4" TOP ✓ Steam Dome: Material **STEEL** ✓
 Tensile strength 26-30 TON/IN² Thickness of shell 3/4" ✓ Description of longitudinal joint **S.R. LAP** ✓
 Diameter of rivet holes 1 1/32" ✓ Pitch of rivets 2 1/4" ✓ Percentage of strength of joint { Plate 54% ✓ Rivets 43.8% ✓ }
 Internal diameter 2'-9" ✓ Thickness of crown 1 5/16" ✓ No. and diameter of stays **Two 2 3/8"** ✓ Inner radius of crown **Flat.** ✓
 How connected to shell **D.R.** ✓ Size of doubling plate under dome 4'-11 1/4" DIA, 1 5/32" Thk. ✓ Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 1 1/2" 4'-6 3/4" PCD ✓
 Type of Superheater **"ME-LE-SCO" R.B.** ✓ Manufacturers of **Weldless Steel Tubes Birmingham** ✓
 Number of elements 60 ✓ Material of tubes **J.D. STEEL** ✓ Steel forgings **Vaughan. Hall & Pickles.** ✓
 Material of headers **F.I. STL.** ✓ Tensile strength Thickness Can the superheater be shut off and the boiler be worked separately **YES** ✓ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler **YES** ✓
 Area of each safety valve 2" DIA. ✓ Are the safety valves fitted with easing gear **YES** ✓
 Pressure to which the safety valves are adjusted 230 lb. ✓ Hydraulic test pressure: tubes 675 lb. ✓ forgings and castings 675 lb. ✓ and after assembly in place 675 lb. ✓ Are drain cocks or valves fitted to free the superheater from water where necessary **YES** ✓
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with **YES** ✓

Heating Surface = 1035 #
 of Sft. (from plan)

For AMOS & SMITH LTD.
 The foregoing is a correct description,

A.P. (Tensley) Manufacturer.
 DIRECTOR

Dates of Survey { During progress of work in shops - - } 1945. Sept. 8. 21. Oct. 5-15. 31. Nov. 21. Dec. 7. 14. 18. 21.
 while building { During erection on board vessel - - } 1946. Jan. 3. 8. 9. 11. 17.

Are the approved plans of boiler and superheater forwarded herewith 23.5.45 (If not state date of approval.)

See machinery report. Total No. of visits 35.

Is this Boiler a duplicate of a previous case **NO** ✓ 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 Rules, approved plans and the Secretary's letters. The workmanship and materials are good.
 The boiler has been installed in Steam Trunk "ST. BARTHOLOMEW", tried under working conditions, safety valves adjusted under steam and accumulation test held and on completion of all tests found satisfactory in every respect.

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

W. Shields

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 26 APR 1946

Assigned See F.E. machy. rpt.



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