

REPORT ON BOILERS.

No. 13411

Received at London Office

22 JAN 1943

Date of writing Report

19

When handed in at Local Office

20. 1. 1943

Port of

Belfast

Tests included in

7. 2. 1943

No. in
Reg. Book.

Survey held at

Belfast.

Date, First Survey

Last Survey

19

on the

Mr. 'SAN VERONICO'

(Number of Visits)

Gross 8188.9

Tons Net 4787.6

Built at

Belfast.

By whom built

Harland & Wolff Ltd

Yard No. 1090

When built 1942

Engines made at

Belfast.

By whom made

Harland & Wolff Ltd

Engine No. 1090

When made 1942

Boilers made at

Belfast.

By whom made

Harland & Wolff Ltd.

Boiler No. 1090

When made 1942.

Nominal Horse Power

502.

Owners

Eagle Oil and Shipping Co

Part belonging to

London.

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

Manufacturers of Steel

Colvilles Ltd.

(Letter for Record

5

Total Heating Surface of Boilers

3530

Is forced draught fitted

yes

Oil fired

EXHUST GAS.

No. and Description of Boilers

One single ended multitubular

Working Pressure

180 lbs/sq

Tested by hydraulic pressure to

320 lbs/sq

Date of test

11. 2. 42

No. of Certificate

1164 Can each boiler be worked separately

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

1. 3" Improved high lift double safety valve.

Area of each set of valves per boiler

per Rule 11. 3 sq ins
as fitted 14. 12 sq ins

Pressure to which they are adjusted

180 lbs/sq

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

Smallest distance between shell of boiler and tank top plating

Boiler flat at aft end of the room

Is the bottom of the boiler insulated

yes.

Largest internal dia. of boilers

16'-3"

Length

12'-6"

Shell plates: Material

Steel

Tensile strength

29. 33 tons

Thickness

1 5/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

DR

long. seams

TRA DBS.

Diameter of rivet holes in

circ. seams 1 13/32"

long. seams 1 13/32"

Pitch of rivets

3. 28"

Percentage of strength of circ. end seams

plate 57. 1
rivets 57

Percentage of strength of circ. intermediate seam

plate 84. 8
rivets 94. 8
combined 88. 5

Percentage of strength of longitudinal joint

plate 84. 8
rivets 94. 8
combined 88. 5

Working pressure of shell by rules 183 lbs/sq

Thickness of butt straps

outer 1"
inner 1 1/8"

No. and Description of Furnaces in each Boiler

Three Corrugated 'Morison' Section.

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

47 1/4"

Length of plain part

top
bottom

Thickness of plates

crown 5/8"
bottom

Description of longitudinal joint

Five weld

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

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 3/16"

Pitch of stays various

How are stays secured

nuts and washers inside and outside.

Tube plates: Material

front Steel
back Steel

Tensile strength

26-30 tons
26-30 tons

Thickness

7/8"
27/32"

Mean pitch of stay tubes in nests

9. 03"

Pitch across wide water spaces

14"

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

10 1/4" x 7/8" x 2

Length as per Rule

3'-1 23/32"

Distance apart

10 1/2" imp 11' centre

No. and pitch of stays

in each

3 @ 8 7/8"

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

23/32"

Back

1 1/16"

Top

23/32"

Bottom

13/16"

Pitch of stays to ditto: Sides

8 7/8" x 9 1/4"

Back

9 3/4" x 8 1/2"

Top

8 7/8" x 10 1/2"

Are stays fitted with nuts or riveted over all other fitted with nuts on fire side only.

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' x 9. 8"

Are stays fitted with nuts or riveted over

nuts.

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

At body of stay,
or
Over threads

3"

No. of threads per inch

6

Screw stays: Material

Steel

Tensile strength

26-30 tons

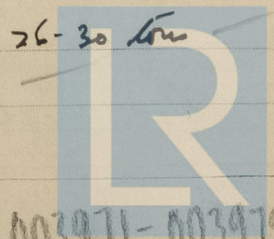
Diameter

At turned off part,
or
Over threads

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

No. of threads per inch

9.



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Foundation

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Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 7/8 or Over threads 1 7/8

No. of threads per inch 9

Tubes: Material weldless steel External diameter { Plain 2 3/4 Stay 2 3/4 Thickness { 9 LSG. 1/4 5/16 1/2 No. of threads per inch 9

Pitch of tubes 4 x 3 7/8 Manhole compensation: Size of opening in shell plate 16 x 12 Section of compensating ring 20 x 1 1/8 No. of rivets and diameter of rivet holes 28 @ 1 7/8

Outer row rivet pitch at ends 9 3/4 Depth of flange if manhole flanged 3 3/8 in. painted plate 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 Inner radius of crown

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

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

Pressure to which the safety valves are adjusted Hydraulic test pressure: 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

The foregoing is a correct description, W. Manhall Manufacturer.

Dates of Survey { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith yes (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 Society's Rules and approved plans. The materials and workmanship are good. The boilers have been efficiently installed on board the vessel, all safety valves adjusted under steam and accumulation tests carried out with satisfactory results.

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

R. Shaw
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned See Bel. J.E. 73411

FRI. 5 FEB 1943