

## REPORT ON BOILERS.

No. 105788

Received at London Office.

of writing Report.

19.

When handed in at Local Office.

29 DEC 1948

Port of

NEWCASTLE-ON-TYNE

in Survey held at

HEBBURN ON TYNE

Date, First Survey

30/12/47

Last Survey

26/11/48

19

900 on the

S.S. "STANROYAL"

(Number of Visits.....)

Gross 9026

Net 5637

er

Built at

HAMBURG

By whom built

A. G. VULCAN

Yard No.

When built 1929

ines made at

HAMBURG

By whom made

VULCAN WERKE

Engine No.

When made 1929

ers made at

HAMBURG

By whom made

VULCAN WERKE

Boiler No.

When made 1929

inal Horse Power

1430

Owners

STANHOPE S.S. CO. LD.

Port belonging to LONDON

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

al Heating Surface of Boilers

4720 sq. ft.

Is forced draught fitted

Yes

Coal or Oil fired

Oil

and Description of Boilers

5 Single Ended Multitubular (Superheat)

Working Pressure

206 lbs/sq. in.

ed by hydraulic pressure to

W.P.

Date of test

15.10.48

No. of Certificate

✓

Can each boiler be worked separately

Yes

a of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Three Spring Loaded

a of each set of valves per boiler

per Rule

✓ 250

Pressure to which they are adjusted

206 lbs

Are they fitted with easing gear

Yes

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

✓

Test distance between boilers or uptakes and bunkers or woodwork

2'-10"

Is oil fuel carried in the double bottom under boilers

Yes

Test distance between shell of boiler and tank top plating

1'-10"

Is the bottom of the boiler insulated

Yes

Test internal dia. of boilers

15'-5" x 950"

Length

12'-0"

Shell plates: Material

Steel

Tensile strength

✓

Thickness

1 7/16"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end Double riveted

seams

Double Butt Strap

Diameter of rivet holes in

circ. seams

1 3/8" + 1/64" 36 φ

long. seams

1 1/2" + 1/64" 39 φ

Pitch of rivets

4"

10"

Percentage of strength of circ. end seams

plate 65.2%

rivets

✓

Percentage of strength of circ. intermediate seam

plate

✓

rivets

✓

Percentage of strength of longitudinal joint

plate 86.1

rivets

✓

Working pressure of shell by Rules

✓

Thickness of butt straps

outer 1 5/16"

inner 1 5/16"

No. and Description of Furnaces in each Boiler

Three Fox Section

Material

Steel

Tensile strength

Smallest outside diameter

41 5/8" 1235 L

Thickness of plain part

top 1 1/16"

bottom 1 1/16"

Thickness of plates

crown 1 1/16"

bottom 1 1/16"

Description of longitudinal joint

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

✓

Working pressure of furnace by Rules

✓

plates in steam space: Material

Steel

Tensile strength

Thickness

1 5/64"

Pitch of stays 14 1/2" x 16 1/2"

are stays secured

Nuts internally and externally

Working pressure by Rules

✓

plates: Material

front Steel

back Steel

Tensile strength

Thickness

1 9/64"

29/32"

pitch of stay tubes in nests

8 5/8"

Pitch across wide water spaces

14 1/8"

Working pressure

front

back

ers to combustion chamber tops: Material

Steel

Tensile strength

Depth and thickness of girder

ntre

10 1/2" x 1 1/16" x 2

Length as per Rule

✓

Distance apart

8 1/2"

No. and pitch of stays

ch

Three - 7 7/8"

Working pressure by Rules

✓

Combustion chamber plates: Material

Steel

le strength

✓

Thickness: Sides

1 1/16"

Back

1 1/16"

Top

1 1/16"

Bottom

29/32"

of stays to ditto: Sides

7 1/16" x 7 7/8"

Back

7 5/8" x 7 7/8"

Top

8 1/2" x 7 7/8"

Are stays fitted with nuts or riveted over

with nuts

ing pressure by Rules

✓

Front plate at bottom: Material

Steel

Tensile strength

✓

ness

1 9/64" 29 1/2"

Lower back plate: Material

Steel

Tensile strength

Thickness

1 1/64"

29 1/2"

of stays at wide water space

13 3/4" x 7 7/8"

Are stays fitted with nuts or riveted over

with nuts

ing pressure

✓

Main stays: Material

Steel

Tensile strength

✓

eter

At body of stay

2 13/16"

Over threads

3 7/16"

No. of threads per inch

6

Area supported by each stay

236 sq. in.

ing pressure by Rules

✓

Screw stays: Material

Steel

Tensile strength

✓

eter

At turned off part

13 3/4"

Over threads

39 1/2"

No. of threads per inch

9

Area supported by each stay

57 sq. in.

Working pressure by Rules. ✓ Are the stays drilled at the outer ends. No ✓ Margin stays: Diameter { At turned off part. 1 25/32" or Over threads. 1 15/16" No. of threads per inch. 9 ✓ Area supported by each stay. 49 sq" Working pressure by Rules. ✓ Tubes: Material. Steel External diameter { Plain. 3" ✓ Stay. 3 1/4" ✓ Thickness { 5/32" 4 1/2" 5/16" 8 1/2" No. of threads per inch. ✓ 9 Pitch of tubes. 4 5/16" 110 1/2 Working pressure by Rules. ✓ Manhole compensation: Size of opening shell plate. 18" x 22" Section of compensating ring. Flanged No. of rivets and diameter of rivet holes. 48 - 1 1/2" + 1/4" Outer row rivet pitch at ends. 7 1/4" Depth of flange if manhole flanged. 4 1/8" ✓ 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. Working pressure by Rules. Thickness of crown. No. and diameter stays. Inner radius of crown. Working pressure by Rules. How connected to shell. Size of doubling plate under dome. Diameter of rivet holes and of rivets in outer row in dome connection to shell.

Type of Superheater. Smoke Tube Type Manufacturers of { Tubes. Steel forgings. Steel castings. Number of elements. 98 Material of tubes. Steel Internal diameter and thickness of tubes. 1 1/16" I.D. x 3/32" Thick Material of headers. Steel Tensile strength. ✓ Thickness. ✓ Can the superheater be shut off the boiler be worked separately. No 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. 2.1 sq" ✓ Are the safety valves fitted with easing gear. Yes ✓ Working pressure by Rules. ✓ Pressure to which the safety valves are adjusted. 206 lbs ✓ Hydraulic test pressure. 10% to 1,500 lbs forgings and castings. 660 lbs and after assembly in place. ✓ Are drain cock 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. The foregoing is a correct description, Manufactured by

Dates of Survey while building { During progress of work in shops - - - Are the approved plans of boiler and superheater forwarded herewith. (If not state date of approval.) During erection on board vessel - - - Total No. of visits.

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.) The boilers were originally built in Germany in 1929 to Germanischer Lloyd class, and have at this time been opened out and reconditioned with a view to Classification. The scantlings have been checked as far as possible with the drawing and are in my opinion eligible for classification, with the following notes for Register Book, viz:- No of Main Blis:- 5 S.B. (Spt): Working Pressure 206 lbs: Total Heating Surface 4720 sq ft:

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

Abulhas Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute. FRI, 4 MAR 1949 See minutes & f.e. etc. Assigned.