

REPORT ON BOILERS.

5a.

Received at London Office

JUL 26 1940

NEWCASTLE-ON-TYNE

Writing Report

19

When bonded in at Local Office

25/7/1

1940

Port of

in Survey held at

Wallsend.

Date, First Survey

6 Feb 1940

Last Survey

15 July

1940

on the

5/5

Twickenham

(Number of Visits)

Gross 4962.

Tons Net 2663.

at Dundee

By whom built

Caledon S.B. & Co. Ltd.

Yard No. 385

When built 1940.

es made at

Wallsend

By whom made

Ch. E. Marine Eng Co (1938) Ltd

Engine No 2949

When made 1940

rs made at

By whom made

Boiler No 2949

When made 1940

nal Horse Power

Owners

Britain S.S. Co. Ltd.

Port belonging to

London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Co of Scotland Ltd.

(Letter for Record S)

d Heating Surface of Boilers

4110 sq. ft.

Is forced draught fitted

yes

Coal or Oil fired

Coal

and Description of Boilers

2 S.B.

Working Pressure 220

ed by hydraulic pressure to

380

Date of test

7.6.40

No. of Certificate

853.

Can each boiler be worked separately

yes

a of Firegrate in each Boiler

40 1/2

No. and Description of safety valves to each boiler

1 Double

a of each set of valves per boiler

(per Rule 10.9.0"

Pressure to which they are adjusted

227 lb.

Are they fitted with easing gear

yes

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

yes

allest distance between boilers or uptakes and bunkers or woodwork

5'-4"

Is oil fuel carried in the double bottom under boilers

No

allest distance between shell of boiler and tank top plating

2'-6"

Is the bottom of the boiler insulated

yes.

greatest internal dia. of boilers

13'-9 7/16"

Length

12'-4 1/2"

Shell plates: Material

S

Tensile strength

29.33

ckness

1 1/32"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

DR.

g. seams

T.R. D.B.S.

Diameter of rivet holes in

circ. seams

1 7/16"

Pitch of rivets

4"

9 7/16"

centage of strength of circ. end seams

plate

64%

rivets

48

Percentage of strength of circ. intermediate seam

plate

check

centage of strength of longitudinal joint

plate

85.4

rivets

87.1

combined

88.2

ackness of butt straps

outer

1 1/16"

No. and Description of Furnaces in each Boiler

3 cf.

aterial

Steel

Tensile strength

26.30

Smallest outside diameter

3'-2 7/16"

ngth of plain part

top

check

Thickness of plates

crown

19/32

Description of longitudinal joint

weld.

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

nd plates in steam space: Material

S

Tensile strength

26.30

Thickness

1 7/32

Pitch of stays

25 x 19"

ow are stays secured

Double nuts

ube plates: Material

front

Steel

Tensile strength

26-30

Thickness

1 7/16"

27/32

lean pitch of stay tubes in nests

9.37

Pitch across wide water spaces

14 1/2" x 7 1/2"

irders to combustion chamber tops: Material

Steel

Tensile strength

29-33

Depth and thickness of girder

t centre

11 1/2" x 1" double

Length as per Rule

3'-10 1/2"

Distance apart

8 1/2"

No. and pitch of stays

n each

3 @ 10 3/4"

Combustion chamber plates: Material

Steel

Tensile strength

26-30

Thickness: Sides

25/32

Back

3/4

Top

25/32

Bottom

25/32

Pitch of stays to ditto:

Sides 10 3/4" x 8 1/2"

Back 9 1/2" x 9 1/16"

Top 10 3/4" x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Front plate at bottom: Material

Steel

Tensile strength

26-30

Thickness

1 7/16"

Lower back plate: Material

Steel

Tensile strength

26-30

Thickness

1 7/16"

Pitch of stays at wide water space

14 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Main stays: Material

Steel

Tensile strength

28-32

Diameter

At body of stay,

3 1/2"

No. of threads per inch

6

Screw stays: Material

Steel

Tensile strength

26-30

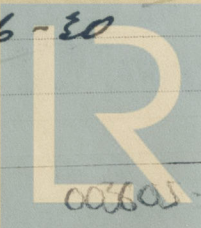
Diameter

At turned off part,

1 7/8" x 2"

No. of threads per inch

9



© 2020

Lloyd's Register Foundation

Are the stays drilled at the outer ends

no

Margin stays : Diameter { At turned off part,
 or
 Over threads

No. of threads per inch

9

Tubes : Material SD Steel

External diameter

Plain

2 1/2"

Thickness

8 W.G.
 7/16 x 3/8

No. of threads per inch 9

Pitch of tubes 3 7/8 x 3 3/4"

Manhole compensation: Size of open

shell plate

Section of compensating ring

No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends

Depth of flange if manhole flanged

4 7/8 x 3 1/2"

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

Internal diameter

Thickness of crown

No. and diam

stays

Inner radius of crown

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 N.E.M. Combustion Chamber

Tubes

Stewarts & Lloyds

Steel forgings

Headers

Steel castings

Stewarts & Lloyds

Number of elements 26

Material of tubes

SD Steel

Internal diameter and thickness of tubes

1.148 7 SWG

Material of headers

SD Steel

Tensile strength

26-28

Thickness

1"

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

3.14 sq

Are the safety valves fitted with easing gear

yes

Pressure to which the safety valves are adjusted

tubes

1500 lbs

Headers

forgings and castings

660 lbs

and after assembly in place

440 lbs

Hydraulic test pressure

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

The foregoing is a correct description,

John Neill

Manufac

Dates of Survey

while building

During progress of work in shops - -

During erection on board vessel - - -

See Mech report

Are the approved plans of boiler and superheater forwarded herewith

(If not state date of approval.)

Total No. of visits

Is this Boiler a duplicate of a previous case

yes

If so, state Vessel's name and Report No. "Tottenham"

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

These boilers & Superheaters have been made under Special Survey in accordance with the approved plan and the Requirements of the Rules. The materials & workmanship are good & the boilers & Superheaters found sound & tight under hydraulic test. They have been forwarded to Dundee to be fitted on board.

Survey Fee

...

£

See Mech Rpt

When applied for,

19

Travelling Expenses (if any) £

When received,

19

Recliff

Engineer-Surveyor Lloyd's Register of Shipping

Committee's Minute

GLASGOW

12 NOV 1940

Assigned

SEE ACCOMPANYING MACHINERY REPORT.



© 2020

Lloyd's Register Foundation