

REPORT ON BOILERS.

No. 84052

Received at London Office

15 APR 1929

Date of Writing Report

192

When handed in at Local Office

192

Port of

NEWCASTLE-ON-TYNE

No. in
g. Book.

Survey held at

Kalberd - on - Tyne.

Date, First Survey

Last Survey

192

on the

New Steel S.S. Yarmsum

(Number of Visits

Gross

5346

Net

5089

aster

Built at Capelle d Yssel

By whom built

A. Kuyk & Zonen

Yard No. 565

When built

1929

ines made at

Kalberd - on - Tyne

By whom made

Korth Eastern Harb. & Eng. Co.

Engine No. 2640

When made

1929

ilers made at

Kalberd - on - Tyne

By whom made

Korth Eastern Harb. & Eng. Co.

Boiler No. 2640

When made

1929

ominal Horse Power

549

Owners

Port belonging to

Amsterdam

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Ltd.

(Letter for Record

S

otal Heating Surface of Boilers

8004

Is forced draught fitted

yes

Coal or Oil fired

coal

o, and Description of Boilers

Three single ended

Working Pressure

220 lbs

ested by hydraulic pressure to

330 lbs.

Date of test

23-1-29

No. of Certificate

324

Can each boiler be worked separately

yes

rea of Firegrate in each Boiler

51.6

No. and Description of safety valves to each boiler

2 Spring loaded.

rea of each set of valves per boiler

per Rule

as fitted

19.2

Pressure to which they are adjusted

225 lbs.

Are they fitted with easing gear

yes

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

yes

Smallest distance between

or uptakes and bunkers

4'-5"

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

2'-6"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

15'-3 1/2"

Length

12'-0"

Shell plates: Material

Steel

Tensile strength

29-33 tons

Thickness

1 1/2"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

inter.

ing. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

1 1/2"

long. seams

Pitch of rivets

4"

Percentage of strength of circ. end seams

plate

62.5

rivets

44.6

Percentage of strength of circ. intermediate seam

plate

85

Percentage of strength of longitudinal joint

plate

85

rivets

89.4

Working pressure of shell by Rules

220.4 lbs

Thickness of butt straps

outer

inner

1 1/2"

combined

89.88

No. and Description of Furnaces in each Boiler

3 corrugated

3 C.F.

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

3'-8 1/8"

Length of plain part

top

bottom

1 1/2"

Thickness of plates

1 1/2"

Description of longitudinal joint

weld

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

Working pressure of furnace by Rules

225.9 lbs

nd plates in steam space: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/2"

Pitch of stays

1'-10 1/2" x 1'-9 3/4"

ow are stays secured

D. Nuts

Working pressure by Rules

220.8 lbs

be plates: Material

front

back

Steel

Tensile strength

26 to 30 tons

Thickness

1"

can pitch of stay tubes in nests

8 1/2"

Pitch across wide water spaces

14 1/4" x 14 1/4"

Working pressure

front

back

226 lbs

rders to combustion chamber tops: Material

Steel

Tensile strength

29 to 33 tons

Depth and thickness of girder

centre

2 @ 9 3/4" x 1 1/2"

Length as per Rule

2'-9"

Distance apart

10 3/4"

No. and pitch of stays

each

2 @ 1 1/4"

Working pressure by Rules

220 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

25/32"

Back

25/32"

Top

25/32"

Bottom

1"

itch of stays to ditto: Sides

9 3/8" x 9 3/8"

Back

9 3/8" x 9 3/8"

Top

1 1/4" x 10 3/4"

Are stays fitted with nuts or riveted over

Nuts

orking pressure by Rules

221 lbs

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

ickness

1"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

15/16"

itch of stays at wide water space

14 1/4" x 9 3/4"

Are stays fitted with nuts or riveted over

Nuts

orking Pressure

247.5 lbs

Main stays: Material

Steel

Tensile strength

28 to 32 tons

iameter

At body of stay,

or

Over threads

3 3/4"

No. of threads per inch

6

Area supported by each stay

481 sq in

orking pressure by Rules

225 lbs

Screw stays: Material

Steel

Tensile strength

26 to 30 tons

iameter

At turned off part,

or

Over threads

1 1/4"

No. of threads per inch

9

Area supported by each stay

96.2 sq in

Working pressure by Rules 221 lbs Are the stays drilled at the outer ends no Margin stays: Diameter 2 1/2" ^{At turned off part.} _{or Over threads} ☒
 No. of threads per inch 9 Area supported by each stay 1190" Working pressure by Rules 241 lbs
 Tubes: Material steel External diameter 3" Thickness 1/4" No. of threads per inch 9
 Pitch of tubes 16" x 12" Working pressure by Rules 255 lbs. Manhole compensation: Size of opening in none
 END plate 16" x 12" Section of compensating ring dished No. of rivets and diameter of rivet holes none
 Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 4 5/8" Steam Dome: Material none.
 Tensile strength 220 Thickness of shell 10 Description of longitudinal joint none
 Diameter of rivet holes 1/4" Pitch of rivets 2" Percentage of strength of joint 100%
 Internal diameter 2 1/2" Working pressure by Rules 255 lbs. Thickness of crown 1/4" No. and diameter of stays none
 How connected to shell none Size of doubling plate under dome none Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell none

Type of Superheater North Eastern Smoke Tube (Schmidt) Tubes The Weldless steel tube Coy. Ltd
 Number of elements 126 Material of tubes A.S. Steel Steel castings The Birmingham Steel Coy. Ltd
 Material of headers forged steel Tensile strength 26,630 lbs Thickness 1/2" Can the superheater be shut off and the boiler be worked separately no
 Area of each safety valve 3.1416 Are the safety valves fitted with easing gear yes Working pressure as per Rules 220 lbs
 Pressure to which the safety valves are adjusted 225 lbs Hydraulic test pressure: 550 lbs
 tubes 1500 lbs castings 660 lbs and after assembly in place 550 lbs 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
 The foregoing is a correct description, Almshill SECRETARY, Manufacturer.

Dates of Survey During progress of work in shops - - See Machinery Report. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) yes
 while building During erection on board vessel - - - Total No. of visits 2

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
These Boilers have been built under Special Survey. Materials & Workmanship good. Hydraulic tests satisfactory. They have been efficiently installed & fixed in the vessel, examined under steam & safety valves adjusted.

Survey Fee ... £ : : When applied for, 192
 Travelling Expenses (if any) £ : : When received, 192
 William Butler.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 19 APR 1929
 Assigned see minute on
have Rpt 84052