

## REPORT ON BOILERS.

No. 92836

Received at London Office 15 AUG 1935

Date of writing Report

19

When handed in at Local Office

12<sup>th</sup> Aug 1935 Port of

NEWCASTLE-ON-TYNE

ing in

No. in Survey held at

Newcastle

Date, First Survey

7<sup>th</sup> May 1935

Last Survey

12<sup>th</sup> Aug 1935

g. Book.

(Number of Visits 9)

Gross

Tons

Net

on the

Multitubular Boiler

laster

Built at

Monfalcone

By whom built

Cantieri Riuniti dell'Adriatico

When built

ter of engines made at

By whom made

Engine No.

When made

boilers made at

Newcastle

By whom made

R &amp; D Hawthorn Leslie &amp; Co. Ltd.

Boiler No.

9790

When made

1935

pitch

Nominal Horse Power

Owners

Port belonging to

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

f and

Manufacturers of Steel

The Steel Company of Scotland Ltd.

(Letter for Record)

Total Heating Surface of Boilers

2317 ft<sup>2</sup>

Is forced draught fitted

yes

Coal or Oil fired

oil

No. and Description of Boilers

One single ended multitubular

Working Pressure

180 lb

Tested by hydraulic pressure to

320 lb

Date of test

2.8.35

No. of Certificate

645

Can each boiler be worked separately

cks or

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Two 3 $\frac{1}{4}$ " John Grant & Co.

Area of each set of valves per boiler

{ per Rule 16.02  
as fitted 16.58

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

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

cturer.

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

14'-3 $\frac{5}{8}$ "

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

28/32

Thickness

1 $\frac{3}{16}$ "

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

D.C. Lap

Long. seams

D.B.S. T.C.

Diameter of rivet holes in

{ circ. seams 1 $\frac{1}{4}$ "  
long. seams

Pitch of rivets

3 $\frac{1}{2}$ "

Percentage of strength of circ. end seams

{ plate 64.28  
rivets 48.5

Percentage of strength of circ. intermediate seam

{ plate  
rivets

Percentage of strength of longitudinal joint

{ plate 85.7  
rivets 91

Working pressure of shell by Rules

183 lb

Thickness of butt straps

{ outer 29/32"  
inner 1 $\frac{1}{32}$ "

No. and Description of Furnaces in each Boiler

3 horizon

Material

Steel

Tensile strength

26/30

Smallest outside diameter

3'-7 $\frac{1}{8}$ "

Length of plain part

{ top  
bottom

Thickness of plates

{ crown 9/16"  
bottom

Description of longitudinal joint

weld

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

Working pressure of furnace by Rules

189 lb

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

1 $\frac{1}{2}$ "

Pitch of stays

1 $\frac{1}{2}$ " x 21"

How are stays secured

D.kuts

Working pressure by Rules

183 lb

Tube plates: Material

{ front Steel  
back

Tensile strength

26/30

Thickness

1 $\frac{1}{2}$ "

Mean pitch of stay tubes in nests

9"

Pitch across wide water spaces

13 $\frac{3}{4}$ "

Working pressure

{ front 242 lb  
back 293 lb

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

at centre

10" x 1 $\frac{1}{2}$ "

Length as per Rule

2'-10 $\frac{3}{4}$ "

Distance apart

10"

No. and pitch of stays

in each

32 8"

Working pressure by Rules

194 lb

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

4 $\frac{5}{16}$ "

Back

4 $\frac{5}{16}$ "

Top

4 $\frac{5}{16}$ "

Bottom

7 $\frac{1}{8}$ "

Pitch of stays to ditto: Sides

8 x 8

Back

8 x 8

Top

8 x 10

Are stays fitted with nuts or riveted over

Rivets

Working pressure by Rules

180 lb

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

1 $\frac{5}{16}$ "

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

2 $\frac{1}{2}$ "

Pitch of stays at wide water space

15 x 8

Are stays fitted with nuts or riveted over

nuts

Working Pressure

200 lb

Main stays: Material

Steel

Tensile strength

28/32

Diameter

{ At body of stay, 3"  
Over threads

No. of threads per inch

6

Area supported by each stay

3 $\frac{1}{2}$  x 7 $\frac{1}{2}$ 

Working pressure by Rules

181 lb

Screw stays: Material

Steel

Tensile strength

26/30

Diameter

{ At turned off part, 1 $\frac{1}{2}$ "  
Over threads 1 $\frac{1}{8}$ "

No. of threads per inch

9

Area supported by each stay

6 $\frac{1}{4}$  x 2 $\frac{1}{2}$ 

ping.

005512-005517-0041

Lloyd's Register  
Foundation



Working pressure by Rules 196 Are the stays drilled at the outer ends 110 Margin stays: Diameter { At turned off part, 13 or Over threads, 14 ✓  
No. of threads per inch 9 Area supported by each stay 920 Working pressure by Rules 197  
Tubes: Material Iron External diameter { Plain 23 Stay 24 Thickness { 9/16 5/16 3/8 No. of threads per inch 9  
Pitch of tubes 4 x 3 3/8 Working pressure by Rules 215 k Manhole compensation: Size of opening in  
shell plate 21 x 17 Section of compensating ring 21 x 1 3/8 No. of rivets and diameter of rivet holes 40 2 1/4  
Outer row rivet pitch at ends 8 3/4 Depth of flange if manhole flanged 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 Rivets  
Internal diameter Working pressure by Rules Thickness of crown No. and diameter of  
stays Inner radius of crown Working pressure by Rules  
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 None Manufacturers of { Tubes 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 casing gear Working pressure as per  
Rules Pressure to which the safety valves are adjusted Hydraulic test pressure:  
tubes 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,

Dates of Survey { During progress of work in shops - - 1935 May 7, 16, Jun 3, 20, Jul 3, 12, 17, 25 Aug. 2  
while building { During erection on board vessel - - -  
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) yes  
Total No. of visits 9 +

Is this Boiler a duplicate of a previous case yes 876 on "Anaplus" excepting that tubes are iron  
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 Requirements + the approved plan. The materials and workmanship are good + the boiler was found satisfactory under hydraulic test. Mountings tested to twice the working pressure. The boiler is being forwarded to Italy where it will be installed on a new oil tanker being built for The Anglo-Saxon Petroleum Co. Ltd.

Survey Fee ... £ 15 : 8 :-

When applied for, 14 AUG 1935

Travelling Expenses (if any) £ : : :-

When received, 16.8.1935

E. J. Stoddart

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 18 SEP 1936

Assigned

See Tri. 11375



© 2020

Lloyd's Register  
Foundation