

REPORT ON BOILERS.

No. 83331

-1 OCT 1928

Received at London Office

Writing Report

When handed in at Local Office

29.9.1928

Port of Newcastle on Tyne

on the book.

Survey held at

St Peter, Newcastle

Date, First Survey

27 Feb

Last Survey

21 Sept

1928

on the *Adrossan D.D. & L.B.C. Co. M.V. No 340.*

(Number of Visits

Tons

Gross
Net

Built at

Adrossan

By whom built

Adrossan D.D. & L.B.C. Co.

Card No.

340 When built *1928*

es made at

St Peter, Nme

By whom made

R.W. Hawthorn Leslie & Co

Engine No.

3725 When made *1928*

made at

do

By whom made

do

Boiler No.

3725 When made *1928*

nal Horse Power

Owners

Port belonging to

LTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

ufacturers of Steel

Steel Co of Scotland

(Letter for Record *S*)

l Heating Surface of Boilers

434 sq ft

Is forced draught fitted

Coal or Oil fired *oil*

and Description of Boilers

One Single Cored.

Working Pressure *150 lb sq in.*

ed by hydraulic pressure to

300 lb

Date of test

23/4/28

No. of Certificate

267.

Can each boiler be worked separately ☒

a of Firegrate in each Boiler

Oil

No. and Description of safety valves to each boiler

2 Spring Loaded

a of each set of valves per boiler

per Rule *3.94*

as fitted *4.14 sq in.*

Pressure to which they are adjusted

150 lb sq in.

Are they fitted with easing gear *Yes*

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

allest distance between boilers or uptakes and bunkers or woodwork

Is oil fuel carried in the double bottom under boilers

allest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

gest internal dia. of boilers

8'-0"

Length

8-9 3/4"

Shell plates: Material

Steel

Tensile strength

29 3/4 to 33 tons

ckness

5/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

1. seam *Double straps*

Omith

Diameter of rivet holes in

circ. seams

1 5/16"

Pitch of rivets

3 3/8"

centage of strength of circ. end seams

plate

66.6

rivets

64.8

Percentage of strength of circ. intermediate seam

plate

None

centage of strength of longitudinal joint

plate

75

rivets

74

Working pressure of shell by Rules

152 lb sq in.

ickness of butt straps

outer *19/32"*

inner *23/32"*

No. and Description of Furnaces in each Boiler

One Morrison

terial

Steel

Tensile strength

26/30 tons

Smallest outside diameter

39 7/8"

ngth of plain part

top *19/32"*

bottom *23/32"*

Thickness of plates

crow *7/16"*

bottom *7/16"*

Description of longitudinal joint

Welded

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

None

Working pressure of furnace by Rules

156 lb sq in.

id plates in steam space: Material

Steel

Tensile strength

26/30 tons

Thickness

7/8"

Pitch of stays *15" x 14"*

ow are stays secured

Double nuts & washers

Working pressure by Rules

166 lb sq in.

be-plates: Material

front *4 steel*

back *4 steel*

Tensile strength

26/30 tons

Thickness

7/8"

ean pitch of stay tubes in nests

8 1/2" x 8"

Pitch across wide water spaces

13"

Working pressure

front *207*

back *222*

rders to combustion chamber tops: Material

Steel

Tensile strength

28/32 tons

Depth and thickness of girder

centre *6 1/2" x 1 1/8"*

Length as per Rule

23"

Distance apart

7 1/2"

No. and pitch of stays

each *20, 7 1/2"*

Working pressure by Rules

210

Combustion chamber plates: Material

Steel

ensile strength

26/30 tons

Thickness: Sides

5/8"

Back

7/8"

Top

5/8"

Bottom

5/8"

itch of stays to ditto: Sides

7 3/8" x 7 1/2"

Back

7 1/2" x 7 1/2"

Top

7 1/2" x 7 1/2"

Are stays fitted with nuts or riveted over

Nuts

Working pressure by Rules

160 lb

Front plate at bottom: Material

Steel

Tensile strength

26/30 tons

hickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26/30 tons

Thickness

7/8"

itch of stays at wide water space

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

207 lb sq in.

Main stays: Material

Steel

Tensile strength

28/32 tons

Diameter

At body of stay, *2 1/2"*

Over threads

No. of threads per inch

6

Area supported by each stay

210 sq in.

Working pressure by Rules

211 lb

Screw stays: Material

Steel

Tensile strength

26/30 tons

Diameter

At turned off part, *1 3/8"*

Over threads

No. of threads per inch

9

Area supported by each stay

56 sq in.

Working pressure by Rules 180 lb Are the stays drilled at the outer ends yes Margin stays: Diameter { At turned off part, 1 7/8 Over threads 1 7/8 ✓

No. of threads per inch 9 Area supported by each stay 900 Working pressure by Rules 167 lb

Tubes: Material Iron External diameter { Plain } 3" Thickness { 9/16" } No. of threads per inch 9

Pitch of tubes 4 1/4" x 4 1/4" Working pressure by Rules 190 lb Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 14" x 7/8" No. of rivets and diameter of rivet holes 19 each side 1"

Outer row rivet pitch at ends 4 1/4" Depth of flange if manhole flanged ✓ Steam Dome: Material None

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 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 easing 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 23 inclusive for boilers been complied with yes The foregoing is a correct description. Manufacturer.



Dates of Survey { During progress of work in shops - - - } See index Report

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This Donkey Boiler has been constructed under special survey, and on completion tested by hydraulic pressure to 300 lb per sq. in. and found tight and sound.

The boiler has been forwarded to Ardrossan where it will be fitted on board the vessel.

But test records and boiler plans now forwarded.

Survey Fee ... £ 10 : 0 : 0 When applied for, 192

Travelling Expenses (if any) £ 0 : 0 : 0 When received, 192

George Murdoch
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 20 NOV 1928

Assigned See Glasgow Report No. 48540