

REPORT ON BOILERS.

No. 57606

28 OCT 1936

Received at London Office

Date of writing Report

19

When handed in at Local Office

24.10.1936

Port of

Glasgow

No. in Survey held at

Glasgow

Date, First Survey

7th Aug

Last Survey

16th Oct 1936

Reg. Book.

(Number of Visits

9

Gross

323

Tons

Net

323

on the

CARRICORNE Boiler No. 936

Master

Built at

Renfrew

By whom built

Lobnitz & Co

Yard No. 994

When built 1937

Engines made at

Rox Prop

By whom made

Engine No.

When made

Boilers made at

Glasgow

By whom made

A. & W. Dalglisch

Boiler No. 936

When made 1936

Nominal Horse Power

Owners

Enterprise Osude

Port belonging to

Youlon

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Colvilles Ltd.

(Letter for Record 5)

Total Heating Surface of Boilers

1050 sq ft

Is forced draught fitted

Coal or Oil fired

No. and Description of Boilers

One Single ended Cylinder return tube

Working Pressure

100 lb.

Tested by hydraulic pressure to

200 lb.

Date of test

16.10.36

No. of Certificate

19832

Can each boiler be worked separately

Area of Firegrate in each Boiler

37.5 sq ft

No. and Description of safety valves to each boiler

Area of each set of valves per boiler

per Rule

Pressure to which they are adjusted

Are they fitted with easing gear

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

Smallest distance between boilers or uptakes and bunkers or woodwork

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia. of boilers

10' 6"

Length

10' 6"

Shell plates: Material

Steel

Tensile strength

28-32 tons

Thickness

5/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

inter.

end

D.R. Lap

long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

15/16"

long. seams

13/16"

Pitch of rivets

3"

4.25"

Percentage of strength of circ. end seams

plate

rivets

68.7

Percentage of strength of circ. intermediate seam

plate

rivets

60.5

Percentage of strength of longitudinal joint

plate

rivets

80.8

Working pressure of shell by Rules

116 lb.

Thickness of butt straps

outer

9/16"

inner

9/16"

No. and Description of Furnaces in each Boiler

Two corrugated Deighton Section

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

37 7/8"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

7/16"

Description of longitudinal joint

Welded

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

✓

Working pressure of furnace by Rules

168 lb.

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

3/4"

Pitch of stays

15" x 15"

How are stays secured

Double nuts and loose washers

Working pressure by Rules

126 lb.

Tube plates: Material

front

steel

back

Tensile strength

26-30 tons

Thickness

3/4"

19/32"

Mean pitch of stay tubes in nests

10.1"

Pitch across wide water spaces

13 1/4"

Working pressure

front

back

109 lb

120 lb.

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

6" 2 @ 1/2"

Length as per Rule

26.91"

Distance apart

7 1/2"

No. and pitch of stays

in each

2 @ 8 1/2"

Working pressure by Rules

115 lb.

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

1/2"

Back

1/2"

Top

1/2"

Bottom

1/16"

Pitch of stays to ditto: Sides

8 1/2" x 8"

Back

8 1/2" x 8"

Top

7 1/2" x 8 1/2"

Are stays fitted with nuts or riveted over

Yes

Working pressure by Rules

103 lb.

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

3/4"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

3/4"

Pitch of stays at wide water space

13"

Are stays fitted with nuts or riveted over

Yes

Working Pressure

142 lb.

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

At body of stay,

or

Over threads

2"

No. of threads per inch

6

Area supported by each stay

225 sq. inches

Working pressure by Rules

116 lb.

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part,

or

Over threads

1 1/4"

No. of threads per inch

9

Area supported by each stay

88 sq. inches

Working pressure by Rules 117 lbs. Are the stays drilled at the outer ends No. Margin stays: Diameter { At turned off part, or Over threads 1 3/8" Working pressure by Rules 100 lbs.
No. of threads per inch 9 Area supported by each stay 107 sq. inches Working pressure by Rules 100 lbs.
Tubes: Material S.D. Steel External diameter { Plain 3 3/4" Thickness 5/16" No. of threads per inch 9
Pitch of tubes 4 3/8" x 4 5/16" Working pressure by Rules 180 lbs. Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 6" x 5/8" No. of rivets and diameter of rivet holes 32 @ 1 5/16"
Outer row rivet pitch at ends 5 5/16" Depth of flange if manhole flanged McNeil 2 3/4" 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 22 inclusive for boilers been complied with 7/20
The foregoing is a correct description, arw. Dalgluish Manufacturer.

Dates { During progress of work in shops - - 1936 Aug.: 7. 10. 19. 26 Sep.: Are the approved plans of boiler and superheater forwarded herewith 7/20
while building { During erection on board vessel - - 1. 17. 21 Oct.: 1. 16 Total No. of visits 9

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.) This boiler has been built under survey in accordance with the Rules and approved plan.
The materials and workmanship are good.
The boiler is to the order of Messrs. Lobnitz & Co. Renfrew No. 994.
24/10/36.

Survey Fee ... £ 7 : 0 : 0 When applied for, 19
Travelling Expenses (if any) £ : : : When received, 19
MONTHLY ACCOUNT
CD G. E. Murdoch
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 27 OCT 1936 GLASGOW 23 MAR 1937
Assigned TRANSMIT TO LONDON See Glasgow Report No. 58156