

REPORT ON BOILERS.

No. 49762

Received at London Office

23 OCT 1929

Date of writing Report

192

When handed in at Local Office

1929

Port of

Glasgow

No. in Survey held at

Glasgow

Date, First Survey

27.2.29

Last Survey

18.10.1929

(Number of Visits

46

Gross 3807

Tons

Net 2345

Master

Built at

Port Glasgow

By whom built

Lithgows Ltd

Yard No.

828

When built

1929

Engines made at

Glasgow

By whom made

Daniel Rowan & Co Ltd

Engine No.

902

When made

1929

Boilers made at

Glasgow

By whom made

Daniel Rowan & Co Ltd

Boiler No.

902

When made

1929

Nominal Horse Power

379

Owners

Herport & Son Ltd

Port belonging to

Herport & Son

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Witkowski Bergbau und Eisenhütten Gewerkschaft Witkowitz

(Letter for Record (S))

Total Heating Surface of Boilers

1158 sq ft

Is forced draught fitted

no

Coal or Oil fired

coal

and Description of Boilers

one single ended

Working Pressure 180

tested by hydraulic pressure to

320

Date of test

13.9.29

No. of Certificate

18435

Can each boiler be worked separately

—

Area of Firegrate in each Boiler

34 sq ft

No. and Description of safety valves to each boiler

2 direct spring

Area of each set of valves per boiler

per Rule 7.430

as fitted 7.940

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

Smallest distance between boilers or uptakes and bunkers or woodwork

2'-3"

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

11'-6"

Length

10'-0"

Shell plates: Material

steel

Tensile strength

29-33 tons

Thickness

5/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

inter.

Circ. seams

WBS. TR

Diameter of rivet holes in

circ. seams

1 1/16"

Pitch of rivets

2 1/2"

1 5/8"

Percentage of strength of circ. end seams

plate 61.5

rivets 55.4

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 86.02

rivets 88.5

combined 89.7

Working pressure of shell by Rules

183

Thickness of butt straps

outer 1 1/2"

inner 1 1/4"

No. and Description of Furnaces in each Boiler

two Deighton

Material

steel

Tensile strength

26-30 tons

Smallest outside diameter

37.96"

Length of plain part

top

bottom

Thickness of plates

crown 3 1/2"

bottom 6 1/4"

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

183

plates in steam space: Material

steel

Tensile strength

26-30 tons

Thickness

3 1/2"

Pitch of stays

16" x 14 3/4"

Are stays secured

W.N.

Working pressure by Rules

182

plates: Material

front steel

back "

Tensile strength

26-30 tons

Thickness

2 1/2"

2 3/8"

Pitch of stay tubes in nests

10.17"

Pitch across wide water spaces

13 7/8"

Working pressure

front 181

back 180

Boilers to combustion chamber tops: Material

steel

Tensile strength

28-32 tons

Depth and thickness of girder

Centre

2 @ 6 5/8" x 1/8"

Length as per Rule

27.625"

Distance apart

9 1/4"

No. and pitch of stays

Back

2 @ 8 3/4"

Working pressure by Rules

188

Combustion chamber plates: Material

steel

Tensile strength

26-30 tons

Thickness: Sides

2 1/2"

Back 3 1/2"

Top 3 1/2"

Bottom 2 1/2"

Pitch of stays to ditto: Sides

8 3/4" x 9 1/2"

Back

8 3/4" x 9 1/2"

Top

8 3/4" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

180

Front plate at bottom: Material

steel

Tensile strength

26-30 tons

Thickness

3 1/2"

Lower back plate: Material

steel

Tensile strength

26-30 tons

Thickness

3/4"

Pitch of stays at wide water space

13 1/2" x 8 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

181

Main stays: Material

steel

Tensile strength

28-32 tons

At body of stay

2 1/2" x 2 1/4"

No. of threads per inch

6

Area supported by each stay

244 & 222 sq in

Over threads

Working pressure by Rules

219 & 193 lbs

Screw stays: Material

steel

Tensile strength

26-30 tons

At turned off part

1578"

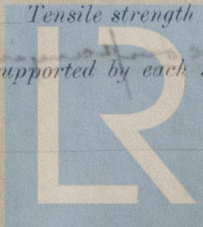
No. of threads per inch

9

Area supported by each stay

83 sq in

Over threads



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Working pressure by Rules 183 Are the stays drilled at the outer ends ☒ Margin stays: Diameter { At turned off part, 1 3/4" & 1 7/8" or Over threads 1 3/4" & 1 7/8" }
No. of threads per inch 9 Area supported by each stay 99 & 101 Working pressure by Rules 183 & 200
Tubes: Material Iron External diameter { Plain 3 1/2" Stay 3 1/2" } Thickness { 9 W.S. 1/4" & 5/16" } No. of threads per inch 9
Pitch of tubes 4 1/16" x 4 3/8" Working pressure by Rules 180 Manhole compensation: Size of opening in shell plate 19 1/4" x 15 1/4" Section of compensating ring 7 1/2" x 5 1/2" No. of rivets and diameter of rivet holes 36 @ 1 1/2"
Outer row rivet pitch at ends 7 3/4" Depth of flange if manhole flanged 3" Steam Dome: Material none
Tensile strength 808 Thickness of shell Description of longitudinal joint
Diameter of rivet holes 50P Pitch of rivets Percentage of strength of joint { Plate 50P Rivets 50P }
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 } Internal diameter and thickness of tubes
Number of elements Material 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 yes

The foregoing is a correct description,
For David Rowan & Co. Ltd. Manufacturer.
Arch. H. Grierson

Dates of Survey { During progress of work in shops - - } See Accompanying Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
while building { During erection on board vessel } Machy Report Total No. of visits 46

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

The materials and workmanship are good.
The boiler has been constructed under special survey in accordance with the Rules satisfactorily fitted in the vessel and its safety valves adjusted under steam.

Survey Fee £ ... When applied for, 192
Travelling Expenses (if any) £ ... When received, 192

Committee's Minute GLASGOW

22 OCT 1929 TRH

Assigned See Accompanying Machy Report

S. C. Davis,
Engineer Surveyor to Lloyd's Register of Shipping.



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