

REPORT ON BOILERS.

No. 88185

1933

Dated 5/4/1933

Received at London Office

8 MAR 1932

10 APR 1933

Date of writing Report

5th March, 1932

When handed in at Local Office

5th March, 1932

Port of

Newcastle-on-Tyne

No. in Reg. Book.

Survey held at

Newcastle-on-Tyne

Date, First Survey

27 Nov. 1931

Last Survey

4th 3/3/1932

1932

(Number of Visits)

144 (6)

Gross

12421

Tons

Net 7086

on the

M.S. Orville Harden

Master

Built at Monfalcone

By whom built C. Riva, dell' Adriatico

Yard No. 250

When built 1932

Engines made at

Turin

By whom made Fiat Fiat Gr. Mat.

Engine No. 1804

1802

When made 1932

Boilers made at

Newcastle-on-Tyne

By whom made R. W. Hawthorn, Leslie & Co. Ltd.

Boiler No. 9648

When made 1932

Nominal Horse Power

306

Owners G. M. H. (Waried Tankschiff Rhoderei GmbH)

Port belonging to Donzig

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel The Steel Company of Scotland Ltd., Glasgow Iron Steel Co. Ltd. (Letter for Record S.)

Total Heating Surface of Boilers

4548 sq. ft.

Is forced draught fitted

yes

Coal or Oil fired

oil

No. and Description of Boilers

Two Single Ended

Working Pressure 200 lbs./sq. in.

Tested by hydraulic pressure to

350 lbs./sq. in.

Date of test

1.3.32

No. of Certificate

567

Can each boiler be worked separately

Area of Firegrate in each Boiler

16.05

No. and Description of safety valves to each boiler

Two Spring loaded

High lift

Area of each set of valves per boiler

as fitted

17.32 sq. ft.

Pressure to which they are adjusted

205 lbs./sq. in.

Are they fitted with easing gear

yes

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

no

Smallest distance between boilers or uptakes and bunkers or woodwork

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

no

Largest internal dia. of boilers

14'-1"

Length

12'-0"

Shell plates: Material

Steel

Tensile strength

28/32 tons/sq. in.

Thickness

1 9/32"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

D.R. Lap

long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

1 3/8"

long. seams

1 3/8"

Pitch of rivets

3 7/8"

9 9/32"

Percentage of strength of circ. end seams

plate

64.5

rivets

49

Percentage of strength of circ. intermediate seam

plate

-

rivets

-

Percentage of strength of longitudinal joint

plate

85.2

rivets

95.8

combined

89.5

Working pressure of shell by Rules

200 lbs./sq. in.

Thickness of butt straps

outer

1 3/16"

inner

1 3/16"

No. and Description of Furnaces in each Boiler

3 Morrison's

Material

Steel

Tensile strength

26/30 tons/sq. in.

Smallest outside diameter

3'-6 3/16"

Length of plain part

top

-

bottom

Thickness of plates

crown

19/32"

bottom

Description of longitudinal joint

weld.

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

Working pressure of furnace by Rules

204 lbs./sq. in.

End plates in steam space: Material

Steel

Tensile strength

26/30 tons/sq. in.

Thickness

1 1/8"

Pitch of stays

16 3/4" x 16"

How are stays secured

D. nuts

Working pressure by Rules

219 lbs./sq. in.

Tube plates: Material

front

Steel

back

Steel

Tensile strength

26/30 tons/sq. in.

Thickness

15/16"

15/16"

Mean pitch of stay tubes in nests

8 23/32"

Pitch across wide water spaces

13 3/4"

Working pressure

front

213 lbs./sq. in.

back

204 lbs./sq. in.

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 tons/sq. in.

Depth and thickness of girder

No. and pitch of stays

at centre

10" x 20 21/32"

Length as per Rule

34 7/16"

Distance apart

6 3/4" Centre

8 1/2" wings

in each

30 8"

Working pressure by Rules

205 lbs./sq. in.

Combustion chamber plates: Material

Steel

Tensile strength

26/30 tons/sq. in.

Thickness: Sides

21/32"

Back

5/8"

Top

21/32"

Bottom

7/8"

Pitch of stays to ditto: Sides

8" x 7 3/4"

Back

7 3/8" x 7 5/8"

Top

8 1/2" x 8"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

223 lbs./sq. in.

Front plate at bottom: Material

Steel

Tensile strength

26/30 tons/sq. in.

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

26/30 tons/sq. in.

Thickness

1"

Pitch of stays at wide water space

16"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

248 lbs./sq. in.

Main stays: Material

Steel

Tensile strength

28/32 tons/sq. in.

Diameter

At body of stay,

or

Over threads

2 3/4"

No. of threads per inch

6

Area supported by each stay

264 sq. in.

Working pressure by Rules

248 lbs./sq. in.

Screw stays: Material

Steel

Tensile strength

26/30 tons/sq. in.

Diameter

At turned off part,

or

Over threads

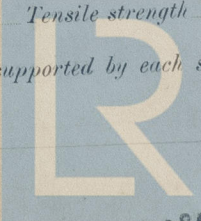
1 5/8" x 1 1/2"

No. of threads per inch

9

Area supported by each stay

66.72 x 66.2



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