

REPORT ON BOILERS.

No. 49634

Date of writing Report

192

When handed in at Local Office

Date, First Survey

Port of

Received at London Office

13 NOV 1929

No. in Survey held at
Reg. Book.

on the

Master

Built at

By whom built

Yard No.

When built

Engines made at

By whom made

Engine No.

When made

Boilers made at

By whom made

Boiler No.

When made

Nominal Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Total Heating Surface of Boilers

Is forced draught fitted

Coal or Oil fired

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Area of each set of valves per boiler

per Rule

as fitted

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

Length

Shell plates: Material

Tensile strength

Thickness

Are the shell plates welded or flanged

Description of riveting: circ. seams

long. seams

Diameter of rivet holes in

circ. seams

long. seams

Pitch of rivets

Percentage of strength of circ. end seams

plate

rivets

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

rivets

combined

Working pressure of shell by Rules

Thickness of butt straps

No. and Description of Furnaces in each Boiler

Material

Tensile strength

Smallest outside diameter

Length of plain part

Thickness of plates

Description of longitudinal joint

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

Working pressure of furnace by Rules

End plates in steam space: Material

Tensile strength

Thickness

Pitch of stays

How are stays secured

Working pressure by Rules

Tube plates: Material

Tensile strength

Thickness

Mean pitch of stay tubes in nests

Pitch across wide water spaces

Working pressure

Girders to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder

at centre

Length as per Rule

Distance apart

No. and pitch of stays

in each

Working pressure by Rules

Combustion chamber plates: Material

Tensile strength

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

Are stays fitted with nuts or riveted over

Working pressure by Rules

Front plate at bottom: Material

Tensile strength

Thickness

Lower back plate: Material

Tensile strength

Thickness

Pitch of stays at wide water space

Are stays fitted with nuts or riveted over

Working Pressure

Main stays: Material

Tensile strength

Diameter

No. of threads per inch

Area supported by each stay

Working pressure by Rules

Screw stays: Material

Tensile strength

Diameter

No. of threads per inch

Area supported by each stay

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Working pressure by Rules 206 & 203 Are the stays drilled at the outer ends *no* Margin stays: Diameter { At turned off part. *1 3/4* & *1 7/8*"
or Over threads
No. of threads per inch *9* Area supported by each stay *89.7 & 105.0"* Working pressure by Rules 201 & 204
Tubes: Material *Iron* External diameter { Plain *2 1/2*"
Stay *2 1/2*" Thickness { *5* *3* *7* *16* *8* *16*" No. of threads per inch *9*
Pitch of tubes *3 5/8" x 3 3/4"* Working pressure by Rules *300* Manhole compensation: Size of opening in
shell plate *15 1/2" x 19 1/2"* Section of compensating ring *9" x 1 1/8"* No. of rivets and diameter of rivet holes *34 @ 1 1/4"*
Outer row rivet pitch at ends *8 1/2"* Depth of flange if manhole flanged *3"* Steam Dome: Material *none*
Tensile strength *208* Thickness of shell *1 1/2"* Description of longitudinal joint
Diameter of rivet holes *1 1/4"* Pitch of rivets *1 1/2"* Percentage of strength of joint { Plate
Rivets
Internal diameter *15 1/2"* Working pressure by Rules *300* Thickness of crown *1 1/2"* No. and diameter of
stays *4* Inner radius of crown *15"* Working pressure by Rules *300*
How connected to shell *8* Size of doubling plate under dome *8 1/2"* 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 *1* Material of tubes *Iron* Internal diameter and thickness of tubes
Material of headers *Iron* Tensile strength *208* Thickness *1 1/2"* Can the superheater be shut off and
the boiler be worked separately *yes* Is a safety valve fitted to every part of the superheater which can be shut off from the boiler
Area of each safety valve *10.5* Are the safety valves fitted with easing gear *yes* Working pressure as per
Rules *300* Pressure to which the safety valves are adjusted *300* Hydraulic test pressure:
tubes *300* castings *300* and after assembly in place *300* Are drain cocks or valves fitted
to free the superheater from water where necessary *yes*

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 *See accompanying*
work in shops - - *machinery Report*
while building { During erection on *machinery Report*
board vessel - - *machinery Report*
Are the approved plans of boiler and superheater forwarded herewith
(If not state date of approval.)
Total No. of visits *5*

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 *£ 192* When applied for, *192*
Travelling Expenses (if any) *£ 192* When received, *192*
S. J. Davis
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 12 NOV 1929*
Assigned *See accompanying machinery Report*
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