

REPORT ON BOILERS.

No. 50023

Received at London Office 15 JAN 1930

Date of writing Report

19

When handed in at Local Office

11. 1. 1930 Port of Glasgow

No. in Reg. Book

Survey held at Glasgow

Date, First Survey 21. 5. 29 Last Survey 26. 12. 1929

(Number of Visits 9)

Gross 827
Net 410

SS YEW PARK

Master

Built at Bowling

By whom built Scott & Son

Yard No. 309 When built 1929

Engines made at Colchester

By whom made Davey, Paxman & Co.

Engine No. 13752 When made 1920

Boilers made at Glasgow

By whom made David Rowan & Co. Ltd

Boiler No. 372 When made 1929

Nominal Horse Power

Owners John Stewart & Co.

Port belonging to Glasgow

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel The steel company of Scotland Ltd. The Scottish Iron & Steel Co. Ltd. (Letter for Record 5)

Total Heating Surface of Boilers 2102 sq ft

Is forced draught fitted No

Coal or Oil fired coal

No. and Description of Boilers one single ended

Working Pressure 180

Tested by hydraulic pressure to 320

Date of test 26.12.29

No. of Certificate 18569

Can each boiler be worked separately -

Area of Firegrate in each Boiler 59 sq ft

No. and Description of safety valves to each boiler Two direct spring

Area of each set of valves per boiler

per Rule 13.47 sq ft
as fitted 14.12 sq ft

Pressure to which they are adjusted -

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 -

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 15' 0"

Length 10' 6"

Shell plates: Material steel

Tensile strength 28.32 tons

Thickness 1 1/32"

Are the shell plates welded or flanged No

Description of riveting: circ. seams

end -
inter. -

long. seams

UTBS TR

Diameter of rivet holes in

circ. seams F 1 3/16"

long. seams B 1 1/2"

Pitch of rivets

F 3.2"

B 3.41"

Percentage of strength of circ. end seams

plate F 62.9

rivets B 64

Percentage of strength of circ. intermediate seam

Percentage of strength of longitudinal joint

plate 86.01

rivets 86.8

combined 89.4

Working pressure of shell by Rules 180

Thickness of butt straps

outer 29"

inner 1 1/32"

No. and Description of Furnaces in each Boiler Three Weighston

Material steel

Tensile strength 26-30 tons

Smallest outside diameter 43.84"

Length of plain part

top -

bottom -

Thickness of plates

top 35"

bottom 34"

Description of longitudinal joint welded

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

Working pressure of furnace by Rules 180

End plates in steam space: Material steel

Tensile strength 26-30 tons

Thickness 1 1/2"

Pitch of stays 20 1/2" x 18 1/2"

How are stays secured

WN

Working pressure by Rules 188

Tube plates: Material

front steel

back -

Tensile strength 26-30 tons

Thickness

27/32"

41/64"

Mean pitch of stay tubes in nests 10.25

Pitch across wide water spaces 13 7/8"

Working pressure

front 181

back 183

Girders to combustion chamber tops: Material steel

Tensile strength 28-32 tons

Depth and thickness of girder

at centre 2 @ 7 5/8" x 1/8"

Length as per Rule 32.6"

Distance apart 9 1/8"

No. and pitch of stays

in each 2 @ 10 3/8"

Working pressure by Rules 182

Combustion chamber plates: Material steel

Tensile strength 26-30 tons

Thickness: Sides 45/64"

Back 21/32"

Top 45/64"

Bottom 45/64"

Pitch of stays to ditto: Sides 10 3/8" x 9 1/8"

Back 9 1/2" x 8 3/4"

Top 10 3/8" x 9 1/8"

Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 181

Front plate at bottom: Material steel

Tensile strength 26-30 tons

Thickness 3/4"

Thickness 27/32"

Lower back plate: Material steel

Tensile strength 26-30 tons

Thickness 3/4"

Pitch of stays at wide water space 13 1/8"

Are stays fitted with nuts or riveted over nuts

Working Pressure 182

Main stays: Material steel

Tensile strength 28-32 tons

Diameter

At body of stay, or Over threads 3" & 2 3/4"

No. of threads per inch 6

Area supported by each stay 3948 354 sq in

Working pressure by Rules 184

Screw stays: Material steel

Tensile strength 26-30 tons

Diameter

At turned off part, or Over threads 1 5/8"

No. of threads per inch 9

Area supported by each stay 810 sq in

004055-004061-0343

Lloyd's Register Foundation

82002

Working pressure by Rules 188 Are the stays drilled at the outer ends *no* Margin stays: Diameter ^{At turned off part.} *13/4 & 17/8*
No. of threads per inch *9* Area supported by each stay *99.6 & 109.0* Working pressure by Rules *182 & 195*
Tubes: Material *Iron* External diameter ^{Plain} *3 3/4* Thickness ^{Stay} *3/4* No. of threads per inch *9*
Pitch of tubes *4 1/2 x 4 3/8* Working pressure by Rules *180* Manhole compensation: Size of opening in
end shell plate *16 x 12* Section of compensating ring *-* No. of rivets and diameter of rivet holes *-*
Outer row rivet pitch at ends *-* Depth of flange if manhole flanged *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 *none* 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 *-*

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

Dates of Survey ^{During progress of} *1929 May 31 June 3 Nov 25* Are the approved plans of boiler and superheater forwarded herewith
^{while building} *Dec 3 5 17 19 24 26* (If not state date of approval.)
Total No. of visits *9*

Is this Boiler a duplicate of a previous case *yes* If so, state Vessel's name and Report No. *"Yewvalley" Gl Rpt No 48429*

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.

The boiler will be fitted on board at this port.

A.B.
9/11/30

Survey Fee *£ 14 -* When applied for *11-1-30*
Travelling Expenses (if any) *£ -* When received *14 JAN 1930*

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

Committee's Minute *GLASGOW* *14 JAN 1930*
Assigned *TRANSMIT TO LONDON*