

REPORT ON BOILERS.

52030
No. 51816

Received at London Office 1 OCT 1931

Site of writing Report

19

When handed in at Local Office

25-9-31

Port of

Glasgow

No. in Survey held at

Book

Glasgow

Date, First Survey

28-4-31

Last Survey

25-9-31

1931

(Number of Visits)

42

Gross

824

Tons

Net

403

Master

Built at Troon

By whom built

Ailsa S B Co

Yard No. 418

When built 1931

Engines made at

Troon

By whom made

Ailsa S B Coy Ltd

Engine No. 153

When made 1932

Boilers made at

Glasgow

By whom made

Davie Rowan & Co Ltd

Boiler No. 385

When made 1931

Nominal Horse Power

115

Owners

J Hay & Sons Ltd

Port belonging to

GLASGOW

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

L. Gillespie

(Letter for Record (S))

Total Heating Surface of Boilers

2021 sq ft

Is forced draught fitted

no

Coal or Oil fired

coal

No. and Description of Boilers

one single ended marine

Working Pressure 200

Tested by hydraulic pressure to

350

Date of test

25-9-31

No. of Certificate

19031

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

57 1/2 sq ft

No. and Description of safety valves to each boiler

two direct spring

Area of each set of valves per boiler

per Rule 11.77 sq in

as fitted 11.88 sq in

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

19' 0"

Length

10' 9"

Shell plates: Material

steel

Tensile strength 29-33 tons

Thickness

1 1/2"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

UTR

Long. seams

UTR

Diameter of rivet holes in

circ. seams

F 1 3/8"

long. seams

B 1 3/8"

Pitch of rivets

F 3.09"

B 3.746"

Percentage of strength of circ. end seams

plate

F 61.5

B 63.2

Percentage of strength of circ. intermediate seam

plate

F 42.9

B 48

Percentage of strength of longitudinal joint

plate

85.5

rivets

88.1

combined

88.7

Working pressure of shell by Rules

200

Thickness of butt straps

outer 63"

inner 64"

No. and Description of Furnaces in each Boiler

three Deighton

Material

steel

Tensile strength

26-30 tons

Smallest outside diameter

3-11 7/16"

Length of plain part

top

bottom

Thickness of plates

crown

2 1/2"

bottom

3 1/2"

Description of longitudinal joint

welded

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

none

Working pressure of furnace by Rules

203

End plates in steam space: Material

steel

Tensile strength

26-30 tons

Thickness

1 3/4"

Pitch of stays 19 3/4" x 19 7/8"

How are stays secured

UTR

Working pressure by Rules

200

Tube plates: Material

front

back

steel

Tensile strength

26-30 tons

Thickness

29"

32"

49"

Mean pitch of stay tubes in nests

10 1/4"

Pitch across wide water spaces

14 1/4"

Working pressure

front 202

back 200

Girders to combustion chamber tops: Material

steel

Tensile strength

28-32 tons

Depth and thickness of girder

At centre

2 @ 1 1/8" x 8 1/2"

Length as per Rule

33.58"

Distance apart

9 1/2"

No. and pitch of stays

In each

2 @ 10 3/8"

Working pressure by Rules

203

Combustion chamber plates: Material

steel

Tensile strength

26-30 tons

Thickness: Sides

3/4"

Back

2 1/2"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

10 3/8" x 9 1/4"

Back

9 1/4" x 8"

Top

10 3/8" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

201

Front plate at bottom: Material

steel

Tensile strength

26-30 tons

Thickness

29"

32"

Lower back plate: Material

steel

Tensile strength

26-30 tons

Thickness

25"

32"

Pitch of stays at wide water space

13 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

200

Main stays: Material

steel

Tensile strength

28-32 tons

Diameter

At body of stay,

3"

or

No. of threads per inch

6

Area supported by each stay

388 sq in

Working pressure by Rules

202

Screw stays: Material

steel

Tensile strength

26-30 tons

Diameter

At turned off part,

1 7/8"

or

No. of threads per inch

9

Area supported by each stay

740 sq in

Lloyd's Register Foundation

W 1149-0030

Working pressure by Rules 206 Are the stays drilled at the outer ends *no* Margin stays: Diameter { At turned off part, or Over threads *1 3/4 & 1 7/8" ✓*
No. of threads per inch *9* Area supported by each stay *91 & 100 sq"* Working pressure by Rules *200 & 213*
Tubes: Material *Iron* External diameter { Plain *3 1/4" ✓* Thickness { *8 w.s. ✓* No. of threads per inch *9*
Pitch of tubes *4 1/2" x 4 3/8" ✓* Working pressure by Rules *230* Manhole compensation: Size of opening
shell plate *15 1/2" x 19 1/2" ✓* Section of compensating ring *9 1/4" x 1 5/16" ✓* No. of rivets and diameter of rivet holes *32 @ 1 3/8"*
Outer row rivet pitch at ends *9 1/4" ✓* Depth of flange if manhole flanged *3" ✓* Steam Dome: Material *none*
Tensile strength Thickness of shell 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 Working pressure by Rules Thickness of crown No. and diameter
stays Inner radius of crown Working pressure by Rules
How connected to shell Size of doubling plate under dome Diameter of rivet holes and
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
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
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. Manufactured
Arch. H. Grierson

Dates of Survey { During progress of work in shops - - 1931 Apr. 28-30 May 4-5 8-12-14 June 2-9-10-11-16-17-24-25
while building { During erection on board vessel - - 29-30 July 1-2 5-6-14 Aug 3-10-17-19 Total No. of visits 42
(If not state date of approval.)

Is this Boiler a duplicate of a previous case *yes* If so, state Vessel's name and Report No. *"The Monarch". G.R. No. 498*

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.*

Survey Fee ... £ 13 : 10 :
Travelling Expenses (if any) £ : :
When applied for, 30 SEP 1931
When received, 2-10-1931

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

Committee's Minute GLASGOW 30 SEP 1931
Assigned TRANSMIT TO LONDON