

Rpt. 5a.

REPORT ON BOILERS.

No. 45184

attached to 45333

Received at London Office 27 JAN 1926

Date of writing Report

192

When handed in at Local Office

23. 11.

1925

Port of

Glasgow

No. in
Reg. Book.

Survey held at

Glasgow

Date, First Survey

18. 8. 25

Last Survey

12. 11

1925

on the

S.S. "Minard"

(Number of Visits

8)

Gross

241

Tons

Net

91

Master

Built at

Bowling

By whom built

Scott & Sons Ltd

Yard No.

305

When built

1925

Engines made at

Glydebank

By whom made

Aitchison Blair Ltd

Engine No.

154

When made

1925

Boilers made at

Glasgow

By whom made

David Rowan & Co Ltd

Boiler No.

333

When made

1925

Nominal Horse Power

Owners

Glyde Cargo Steamers Ltd

Port belonging to

Glasgow

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Ltd

(Letter for Record

(5)

Total Heating Surface of Boilers

1843 sq ft

Is forced draught fitted

no

Coal or Oil fired

coal

No. and Description of Boilers

One single ended marine

Working Pressure

130

Tested by hydraulic pressure to

245

Date of test

12-11-25

No. of Certificate

16972

Can each boiler be worked separately

Area of Firegrate in each Boiler

53.5 sq ft

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

14'-0"

Length

10'-6"

Shell plates: Material

steel

Tensile strength

28.32 tons

Thickness

21/32"

Are the shell plates welded or flanged

no. (Butt straps ends welded)

Description of riveting: circ. seams

end

inter.

long. seams

DBS. TR

Diameter of rivet holes in

circ. seams

15/16"

long. seams

Pitch of rivets

2.575"

6 1/16"

Percentage of strength of circ. end seams

plate

63.6

rivets

52.2

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

85.98

rivets

94.2

combined

90.7

Working pressure of shell by Rules

130

Thickness of butt straps

outer

21/32"

inner

25/32"

No. and Description of Furnaces in each Boiler

Three Deighton. corrugated

Material

steel

Tensile strength

26.30 tons

Smallest outside diameter

39.75"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

3/8"

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

133

End plates in steam space: Material

steel

Tensile strength

26.30 tons

Thickness

1"

Pitch of stays

18 1/2 x 19"

How are stays secured

DN

Working pressure by Rules

131

Tube plates: Material

front

steel

back

steel

Tensile strength

26.30 tons

Thickness

3/4"

11/16"

Mean pitch of stay tubes in nests

11.06"

Pitch across wide water spaces

14 1/2"

Working pressure

front

136

back

137

Girders to combustion chamber tops: Material

steel

Tensile strength

28.32 tons

Depth and thickness of girder

at centre

2 @ 6 3/4 x 13/16"

Length as per Rule

30.47"

Distance apart

10.25"

No. and pitch of stays

in each

2 @ 9 1/8"

Working pressure by Rules

134

Combustion chamber plates: Material

steel

Tensile strength

26.30 tons

Thickness: Sides

5/8"

Back

19/32"

Top

5/8"

Bottom

25/32"

Pitch of stays to ditto: Sides

9 1/8 x 10 1/4"

Back

10 x 9 1/4"

Top

9 1/8 x 10 1/4"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

132.5

Front plate at bottom: Material

steel

Tensile strength

26.30 tons

Thickness

3/4"

Lower back plate: Material

steel

Tensile strength

26.30 tons

Thickness

11/16"

Pitch of stays at wide water space

13 1/2 x 10"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

134

Main stays: Material

steel

Tensile strength

28.32 tons

Diameter

At body of stay,

or

Over threads

No. of threads per inch

6

Area supported by each stay

352 sq in

Working pressure by Rules

152

Screw stays: Material

steel

Tensile strength

26.30 tons

Diameter

At turned off part,

or

Over threads

No. of threads per inch

9

Area supported by each stay

92.5 sq in

Working pressure by Rules 135 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 5/8" or Over threads 1 3/4"
 No. of threads per inch 9 Area supported by each stay 113 sq" Working pressure by Rules 134
 Tubes: Material Iron External diameter { Plain 3 1/4" Thickness { 9 w 9 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
 shell plate 15" x 19" Section of compensating ring 7 1/4" x 27" No. of rivets and diameter of rivet holes 36 @ 1"
 Outer row rivet pitch at ends 7" Depth of flange if manhole flanged 3" 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 23 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 1925 Aug. 18 Sept 22 24. Are the approved plans of boiler and superheater forwarded herewith yes
 while building { During erection on board vessel - - - Oct. 5-22-29 Nov 4.12. (If not state date of approval.)
 Total No. of visits 8

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 ... £ 12 : 6 :
 Travelling Expenses (if any) £ : :

When applied for, 23/11/25 1925.
 When received, 26/11/25 1925. MASH.

S. C. Davis.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 24 NOV 1925

Assigned TRANSMIT TO LONDON

See G. R. H. No. 4533