

REPORT ON BOILERS.

No. 45228

Attached

Received at London Office

18 DEC 1925

17 MAR 1926

Date of writing Report

192

When handed in at Local Office 12-12-25 192

Port of

Glasgow

No. in Survey held at
Reg. Book.

Glasgow

Date, First Survey

24-9-25

Last Survey

9-12-

1925

(Number of Visits 10)

Tons

Gross 880

Net 366

Master

Built at

Troon

By whom built

Ailsa S. B. Co. Ltd

Yard No. 397

When built 1926

Engines made at

Troon

By whom made

Ailsa S. B. Co. Ltd

Engine No. 132

When made 1926

Boilers made at

Glasgow

By whom made

Barclay Curle & Co. Ltd

Boiler No. 5

When made 1925

Nominal Horse Power

175

Owners

General Steam Nav. Co. Ltd

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland Ltd

(Letter for Record (S))

Total Heating Surface of Boilers

3404 sq feet

Is forced draught fitted

no

Coal or Oil fired

No. and Description of Boilers

Two, single ended marine.

Working Pressure 200 lbs

Tested by hydraulic pressure to

350

Date of test

9-12-25

No. of Certificate

16999

Can each boiler be worked separately

Area of Firegrate in each Boiler

510 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

13'-9"

Length

10'-6"

Shell plates: Material

Steel

Tensile strength

28-32 tons

Thickness

1 1/2"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end DR.

long. seams

D.B.S. T.R.

Diameter of rivet holes in

circ. seams

1 5/8"

Pitch of rivets

3.73"

Percentage of strength of circ. end seams

plate

64.8

rivets

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

85.6

rivets

Working pressure of shell by Rules

200

Thickness of butt straps

outer

3 1/2"

Material

Steel

No. and Description of Furnaces in each Boiler

Three Deighton corrugated.

Tensile strength

26-30 tons

Smallest outside diameter

41.72"

Length of plain part

top

bottom

Thickness of plates

crown

3 1/4"

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

201

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 1/2"

Pitch of stays

18 1/2" x 18"

How are stays secured

D.N.

Working pressure by Rules

222

Tube plates: Material

front Steel

back

Steel

Tensile strength

26-30 tons

Thickness

15/16"

13/16"

Mean pitch of stay tubes in nests

10.9"

Pitch across wide water spaces

14 1/2"

Working pressure

front 205

back 202

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

2 @ 9 3/4" x 3/4"

Length as per Rule

33.03"

Distance apart

10"

No. and pitch of stays

in each

3 @ 8"

Working pressure by Rules

203

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

11/16"

Back

31/32"

Top

11/16"

Bottom

3/4"

Pitch of stays to ditto: Sides

8" x 10"

Back

8 1/2" x 9"

Top

8" x 10"

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

15/16"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

53/64"

Pitch of stays at wide water space

14 1/2" x 8 1/4"

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"

No. of threads per inch

6

Area supported by each stay

3280"

Working pressure by Rules

200

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part,

1 5/8"

or

1 3/4"

No. of threads per inch

9

Area supported by each stay

74.2 & 80 1/2"

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Working pressure by Rules 205 & 221 Are the stays drilled at the outer ends no ✓ Margin stays: Diameter { At turned off part. 1 7/8" ✓
or Over threads
No. of threads per inch 9 ✓ Area supported by each stay 97 Working pressure by Rules 220
Tubes: Material Iron ✓ External diameter { Plain 3 1/2" ✓ Stay 3 1/2" ✓ Thickness { 8 W.G. ✓ 3/8" 5/16" ✓ No. of threads per inch 9 ✓
Pitch of tubes 4 3/4" x 4 5/8" ✓ Working pressure by Rules 215 Manhole compensation: Size of opening in
shell plate 16" x 20" ✓ Section of compensating ring 10 3/4" x 1 1/4" ✓ No. of rivets and diameter of rivet holes 40 @ 1 5/16" ✓
Outer row rivet pitch at ends 9 1/8" ✓ Depth of flange if manhole flanged 4 1/4" ✓ 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 23 inclusive for boilers been complied with _____

The foregoing is a correct description,
FEARLESS BOILER CO., LTD. Manufacturer.
John Huxtable Manager

Dates of Survey { During progress of work in shops - 1925 Sep 24 Oct 9 15 19 Nov 26 10 20 Are the approved plans of boiler and superheater forwarded herewith yes ✓
(If not state date of approval.)
while building { During erection on board vessel - Dec 3 9 Total No. of visits 10

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

The workmanship and materials are good.
The boilers have been constructed under special survey in accordance with the Rules.
The boilers have been securely fitted on board the vessel and
tried under steam with satisfactory results. D.C.B.

Survey Fee £ 22 : 14 : -
Travelling Expenses (if any) £ : : }

When applied for, 14.12.25 1925
When received, 29.1.26 1926

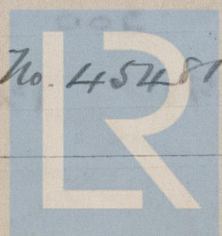
S. C. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 15 DEC 1925

Assigned TRANSMIT TO LONDON

See G.S. Rpt. No. 45481



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