

REPORT ON BOILERS.

No. 54997

Received at London Office 3 OCT 1934

Writing Report

19

When handed in at Local Office

1. 10. 1934

Port of

Glasgow

Survey held at

Glasgow

Date, First Survey 20. 8. 34

Last Survey 26-9-1934

on the

S/S

(Number of Visits 14)

Gross
Tons
Net

Built at Lewis Dubeau

By whom built Davie S B & R Co

Yard No. 510

When built 1934

s made at

Glasgow

By whom made Aitchison Blair & Co Ltd

Engine No. 190

When made 1934

s made at

Glasgow

By whom made Davie Rowan & Co Ltd

Boilers No. 401

When made 1934

al Horse Power

Owners

Port belonging to

TITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

L. D. Miller Ltd.

(Letter for Record (S) ✓)

Heating Surface of Boilers

2460 sq ft ✓

Is forced draught fitted

no

Coal or Oil fired

coal

and Description of Boilers

Two Navy Type ✓

Working Pressure

120 ✓

Tested by hydraulic pressure to

230 ✓

Date of test

26-9-34

No. of Certificate

19452

Can each boiler be worked separately

of Firegrate in each Boiler

29.25 sq ft ✓

No. and Description of safety valves to each boiler

of each set of valves per boiler

{ per Rule

{ as fitted

Pressure to which they are adjusted

Are they fitted with easing gear

of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Least distance between boilers or uptakes and bunkers or woodwork

Is oil fuel carried in the double bottom under boilers

Least distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Least internal dia. of boilers

4'-6" ✓

Length

18'-0" ✓

Shell plates: Material

steel

Tensile strength

28-32 tons ✓

Thickness

5/8" ✓

Are the shell plates welded or flanged

no ✓

Description of riveting: circ. seams

{ end. WR Lap ✓

{ inter. WR Lap ✓

seams

WR S. TR ✓

Diameter of rivet holes in

{ circ. seams

{ 1 1/2" ✓

Pitch of rivets

{ ends 2-6 1/8" Inter 2-2 1/4" ✓

Percentage of strength of circ. end seams

{ plate

{ 64.9

{ rivets

{ 52

Percentage of strength of circ. intermediate seam

{ plate

{ 63.8

{ rivets

{ 60.7

Percentage of strength of longitudinal joint

{ plate

{ 82.8

{ rivets

{ 101.3

{ combined

{ 92.8

Working pressure of shell by Rules

168

Thickness of butt straps

{ outer 7/16" ✓

{ inner 9/16" ✓

No. and Description of Furnaces in each Boiler

Two Deighton

Material

steel

Tensile strength

26-30 tons ✓

Smallest outside diameter

2'-8 1/8" ✓

Thickness of plain part

{ top 7/16" ✓

{ bottom 7/16" ✓

Thickness of plates

{ crown 7/16" ✓

{ bottom 7/16" ✓

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

190

plates in steam space: Material

Steel ✓

Tensile strength

26-30 tons ✓

Thickness

F 23/32" B 11/16" ✓

Pitch of stays

13" x 13" ✓

Are stays secured

DN & RW ✓

Working pressure by Rules

180

plates: Material

{ front end steel ✓

{ back cc " ✓

Tensile strength

{ 26-30 tons ✓

Thickness

{ 11/16" ✓

{ 11/16" ✓

Pitch of stay tubes in nests

11 9/16" ✓

Pitch across wide water spaces

✓

Working pressure

{ front 126

{ back 126

Boilers to combustion chamber tops: Material

Steel ✓

Tensile strength

28-32 tons ✓

Depth and thickness of girder

Centre

20 7/8" x 9/16" ✓

Length as per Rule

27 11/16" ✓

Distance apart

9" ✓

No. and pitch of stays

Pitch

20 9/16" ✓

Working pressure by Rules

141

Combustion chamber plates: Material

Steel ✓

Tensile strength

26-30 tons ✓

Thickness: Sides

9/16" ✓

{ front 5/8" ✓

{ back 5/8" ✓

Top

9/16" ✓

Bottom

9/16" ✓

Pitch of stays to ditto: Sides

9" x 9" ✓

Back

—

Top

9" x 9" ✓

Are stays fitted with nuts or riveted over

nuts ✓

Working pressure by Rules

134

Front plate at bottom: Material

Steel ✓

Tensile strength

26-30 tons ✓

Thickness

23/32" ✓

Lower back plate: Material

Steel ✓

Tensile strength

26-30 tons ✓

Thickness

11/16" ✓

Pitch of stays at wide water space

—

Are stays fitted with nuts or riveted over

—

Working Pressure

180

Main stays: Material

Steel ✓

Tensile strength

28-32 tons ✓

Pitch

{ At body of stay, 1 3/4" ✓

{ Over threads

No. of threads per inch

6

Area supported by each stay

169 sq" ✓

Working pressure by Rules

135

Screw stays: Material

Steel ✓

Tensile strength

26-30 tons ✓

Pitch

{ At turned off part, 1 3/8" ✓

{ Over threads

No. of threads per inch

9

Area supported by each stay

81 sq" ✓

Working pressure by Rules 125 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, ✓
Over threads ✓
No. of threads per inch - Area supported by each stay - Working pressure by Rules -
Tubes: Material Iron External diameter { Plain 3 1/2 Thickness { 9 W.G. No. of threads per inch 9
Stay 3 1/2 5/16
Pitch of tubes 4 5/8 x 4 5/8 Working pressure by Rules 165 Manhole compensation: Size of opening in
shell plate 16 x 12 Section of compensating ring 6" x 3/4" No. of rivets and diameter of rivet holes 32 @ 7/8"
Outer row rivet pitch at ends 4 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 0 1/2 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. Frierson

Dates of Survey { During progress of work in shops - - 1934 Aug. 20. 23. 24. 29. 31 Sep. Are the approved plans of boiler and superheater forwarded herewith -
while building { During erection on board vessel - - 3. 4. 6. 10. 11. 13. 17. 19. 26 (If not state date of approval.)
Total No. of visits 14

Is this Boiler a duplicate of a previous case no If so, state Vessel's name and Report No. -

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

The materials and workmanship are good.
The boilers have been constructed under special survey.
They are being dispatched to Lewis, Quebec to be fitted in the vessel.
for classed vessel

1/10/34

Survey Fee ... £ 16 : 8 :

Travelling Expenses (if any) £ :

When applied for, 2 - OCT 1934

When received, 6.10.34

S. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 2 - OCT 1934

Assigned TRANSMIT TO LONDON

TUE. 26 FEB 1935

See Int. 7.6. Lloyd's Register Foundation