

REPORT ON BOILERS.

No. 50238

Received at London Office

10 MAR 1930

Date of writing Report

19

When handed in at Local Office

17.3

1929

Port of

Glasgow

No. in Survey held at

Glasgow

Date, First Survey

10.9.29

Last Survey

13.3.1930

Reg. Book.

40223 on the new steel S/S "Eskdalegate"

(Number of Visits 38)

Gross 4250
Net 2634

Master

Built at

Buntisland

By whom built

Buntisland SBC

Yard No.

160

When built

1930

Engines made at

Glasgow

By whom made

David Rowan & Co Ltd

Engine No.

928

When made

1930

Boilers made at

Glasgow

By whom made

David Rowan & Co Ltd

Boiler No.

928

When made

1930

Nominal Horse Power

349

Owners

Turnbull Scott Shipping Co Ltd

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Witherby & Co Ltd Glasgow and Eisenhütten-Gesellschaft in Witten

(Letter for Record (S) —)

Total Heating Surface of Boilers

4686 sq ft

Is forced draught fitted

no

Coal or Oil fired

coal

No. and Description of Boilers

Two single ended marine

Working Pressure

200

Tested by hydraulic pressure to

350

Date of test

24.1.30

No. of Certificate

18595

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

60.5 sq ft

No. and Description of safety valves to each boiler

Two direct spring

Area of each set of valves per boiler

per Rule 13.6 sq ft
as fitted 14.12 sq ft

Pressure to which they are adjusted

205 lbs

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

and bunkers or woodwork

2'-10"

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

2'-6"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

15'-6"

Length

11'-0"

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

inter.

long. seams

UTS TR

Diameter of rivet holes in

circ. seams

F 1 5/8" B 1 3/8"

Pitch of rivets

F 3.41 B 3.19

Percentage of strength of circ. end seams

plate

F 61.5 B 63.7

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

85.8

rivets

84.5

combined

88.5

Working pressure of shell by Rules

200

Thickness of butt straps

outer 1" inner 1 1/8"

No. and Description of Furnaces in each Boiler

Three Waterston

Material

steel

Tensile strength

26-30 tons

Smallest outside diameter

3'-9 1/4"

Length of plain part

top bottom

Thickness of plates

crown bottom

5/8"

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

202

End plates in steam space: Material

steel

Tensile strength

26-30 tons

Thickness

1 1/2"

Pitch of stays

2 1/4" x 19 1/2"

How are stays secured

UTN

Working pressure by Rules

201

Tube plates: Material

front steel back "

Tensile strength

26-30 tons

Thickness

2 1/2"

2 1/2"

Mean pitch of stay tubes in nests

10'-2"

Pitch across wide water spaces

14"

Working pressure

front 206 back 210

Girders to combustion chamber tops: Material

steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

2 @ 9" x 1 1/2"

Length as per Rule

33.53"

Distance apart

9 1/2"

No. and pitch of stays

in each

3 @ 8"

Working pressure by Rules

205

Combustion chamber plates: Material

steel

Tensile strength

26-30 tons

Thickness: Sides

1 1/2"

Back

1 1/2"

Top

1 1/2"

Bottom

1 1/2"

Pitch of stays to ditto: Sides

8" x 9 1/2"

Back

8" x 9 1/2"

Top

8" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

214

Front plate at bottom: Material

steel

Tensile strength

26-30 tons

Thickness

2 1/2"

Lower back plate: Material

steel

Tensile strength

26-30 tons

Thickness

1 3/4"

Pitch of stays at wide water space

13 1/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

207

Main stays: Material

steel

Tensile strength

28-32 tons

Diameter

At body of stay, or Over threads

3 1/4" & 3"

No. of threads per inch

6

Area supported by each stay

434 & 381 sq in

Working pressure by Rules

214 & 209

Screw stays: Material

steel

Tensile strength

26-30 tons

Diameter

At turned off part, or Over threads

1 7/8"

No. of threads per inch

9

Area supported by each stay

76 sq in

Working pressure by Rules 200 Are the stays drilled at the outer ends no Margin stays: Diameter 1 3/4 & 2"
No. of threads per inch 9 Area supported by each stay 91 & 112 1/4" Working pressure by Rules 200 & 221
Tubes: Material Iron External diameter 3 1/4" Thickness 8 w.g. 1/4" 9/16" 3/8" 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 in
end shell plate 16" x 12" Section of compensating ring flanged 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 280 Description of longitudinal joint butt joint
Diameter of rivet holes ✓ Pitch of rivets ✓ Percentage of strength of joint ✓
Internal diameter 85 p Working pressure by Rules 230 Thickness of crown ✓ No. and diameter of
stays 85 p Inner radius of crown ✓ Working pressure by Rules 230
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
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 Roway & Co. Ltd. Manufacturer.
Arch. W. Grierson

Dates of Survey ✓ During progress of work in shops -- ✓ Are the approved plans of boiler and superheater forwarded herewith
while building ✓ During erection on board vessel --- ✓ (If not state date of approval.)
Total No. of visits 38

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. Skeldergate. Gls Rpt. N. 49991

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

These Boilers have been efficiently fitted on board, & their safety values have been adjusted under steam.

John Houston.
Leith 1/5/30

Survey Fee £ When applied for, 10
Travelling Expenses (if any) £ When received, 10

Committee's Minute GLASGOW 18 MAR 1930
Assigned See accompanying Machinery Report

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