

5a.

REPORT ON BOILERS.

No. 56390

Received at London Office

10 DEC 1935

Writing Report

10

When handed in at Local Office

29. 11. 1935

Port of

Glasgow

Survey held at

Glasgow

Date, First Survey

28. 6. 35

Last Survey

29-11-1935

(Number of Visits 31)

Gross
Tons
Net

on the new steel S/S "WOODBURY"

Built at Buntisland

By whom built Buntisland SBCOLD

Yard No. 188

When built 1935

diameters made at

Glasgow

By whom made

Davie Rowan & Co Ltd

Engine No. 983

When made 1935

rs made at

Glasgow

By whom made

Davie Rowan & Co Ltd

Boiler No. 983

When made 1935

and

Horse Power

314

Owners

Port belonging to

London

L TITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

L. Shillies Ltd

(Letter for Record (S) ✓)

ure as

Heating Surface of Boilers

3300 sq ft

Is forced draught fitted

yes

Coal or Oil fired

coal

pressure

Description of Boilers

Two single ended

Working Pressure 220

boilers

tested by hydraulic pressure to

380

Date of test

2-10-35

No. of Certificate

19613

Can each boiler be worked separately

yes

of Firegrate in each Boiler

40.5 sq ft

No. and Description of safety valves to each boiler

Two Improved high lift (1 3/4")

of each set of valves per boiler

{ per Rule

4.388 sq ft

Pressure to which they are adjusted

220 lbs

Are they fitted with easing gear

yes

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

✓

distance

between boilers or uptakes and bunkers or woodwork

16"

Is oil fuel carried in the double bottom under boilers

No

distance

between shell of boiler and tank top plating

2'-6"

Is the bottom of the boiler insulated

Yes

internal dia.

of boilers

13'-0"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength 29-33 tons

thickness

1 1/4"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

{ end

DR

seams

WBS TR

Diameter of rivet holes in

{ circ. seams

F 1 3/8" B 1 5/16"

Pitch of rivets

{ F 3.169" B 3.6"

percentage

of strength of circ. end seams

{ plate

F 62.5 B 63.5

{ rivets

F 44.2 B 47.7

Percentage of strength of circ. intermediate seam

{ plate

✓

percentage

of strength of longitudinal joint

{ plate

85.4

{ rivets

90.7

{ combined

88.9

Working pressure of shell by Rules

223

thickness

of butt straps

{ outer

1 1/2"

{ inner

1 1/4"

No. and Description of Furnaces in each Boiler

Three Deighton

material

Steel

Tensile strength 26-30 tons

Smallest outside diameter

3'-1 1/8"

length

of plain part

{ top

✓

Thickness of plates

{ crown

2 1/16"

{ bottom

2 1/16"

Description of longitudinal joint

welded

dimensions

of stiffening rings on furnace or c.c. bottom

Working pressure of furnace by Rules

220

plates

in steam space: Material Steel

Tensile strength 26-30 tons

Thickness 1 5/16"

Pitch of stays 15 1/2" x 18"

are

stays secured

WN

Working pressure by Rules

221

plates

Material

{ front

Steel

{ back

"

Tensile strength

26-30 tons

Thickness

{ 15 1/16"

{ 25 3/32"

pitch

of stay tubes in nests

9.7"

Pitch across wide water spaces

14"

Working pressure

{ front

229

{ back

232

riders

to combustion chamber tops: Material Steel

Tensile strength 28-32 tons

Depth and thickness of girder

centre

2 @ 7 5/8" x 7/8"

Length as per Rule

2'-7 9/16"

Distance apart

8"

No. and pitch of stays

each

2 @ 10"

Working pressure by Rules

223

Combustion chamber plates: Material

Steel

tensile

strength

26-30 tons

Thickness: Sides

23 3/32"

Back

21 3/32"

Top

23 3/32"

Bottom

23 3/32"

pitch

of stays to ditto: Sides

8 x 10"

Back

8 1/2 x 8"

Top

8 x 10"

Are stays fitted with nuts or riveted over

nuts

working

pressure by Rules

220

Front plate at bottom: Material

Steel

Tensile strength 26-30 tons

thickness

15 1/16"

Lower back plate: Material

Steel

Tensile strength 26-30 tons

Thickness

13 1/16"

pitch

of stays at wide water space

13 7/16"

Are stays fitted with nuts or riveted over

nuts

working

Pressure

220

Main stays: Material

Steel

Tensile strength 28-32 tons

meter

{ At body of stay,

2 3/4"

No. of threads per inch

6

Area supported by each stay

282

working

pressure by Rules

232

Screw stays: Material

Steel

Tensile strength 26-30 tons

meter

{ At turned off part,

1 5/8"

1 3/4"

1 7/8"

No. of threads per inch

9

Area supported by each stay

68.5"

82.5"

93.5"

W98-0157

Working pressure by Rules 220 Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part,} 1 3/4"
No. of threads per inch 9 Area supported by each stay 82.5 sq" Working pressure by Rules 220
Tubes: Material 2 in External diameter ^{Plain} 3" Thickness 8 W. 9. No. of threads per inch 9
Pitch of tubes 4 1/8" x 4 3/16" Working pressure by Rules 250 Manhole compensation: Size of
shell plate 15 1/2" x 19 1/2" Section of compensating ring 12 1/2" x 1 1/4" No. of rivets and diameter of rivet holes 34 @ 1 5/16"
Outer row rivet pitch at ends 9" 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}
Internal diameter Working pressure by Rules Thickness of crown No. and dia
stays Inner radius of crown Working pressure by Rules
How connected to shell Size of doubling plate under dome Diameter of rivet holes
of rivets in outer row in dome connection to shell

Type of Superheater Smoke tube Manufacturers of For particulars see New Cert. C 3176
Number of elements Material of tubes Internal diameter and thickness of tubes
Material of headers Tensile strength Thickness Can the superheater be shut
the boiler be worked separately no Is a safety valve fitted to every part of the superheater which can be shut off from the boiler yes
Area of each safety valve 1.770" Are the safety valves fitted with easing gear yes Working pressure
Rules Pressure to which the safety valves are adjusted Hydraulic test pressure
tubes, castings and after assembly in place 440 lb Are drain cocks or valves
to free the superheater from water where necessary yes
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes

The foregoing is a correct description,
For David Rowan & Co. Ltd.
Arch. H. Grierson Manuf

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

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. Auretta Gl. Rpt. N° 55948

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 have been sent to Burntisland to be fitted in the vessel.

These boilers have been efficiently fitted on board, examined under steam
& safety valves adjusted to 220 lbs

CHR.

Survey Fee ... £ See main Rpt. When applied for, 19
Travelling Expenses (if any) £ : : When received, 19

S. Davis

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 3-DEC 1935

Assigned SEE ACCOMPANYING MACHINERY REPORT.

See R. Machy Rpt.

FRI. 24 JAN 1936
Lloyd's Register
Foundation