

REPORT ON BOILERS.

No. 49652

Received at London Office

-3 OCT 1929

Date of writing Report 25.9.1929 When handed in at Local Office 1.10.1929

Port of Glasgow

No. in Reg. Book

Survey held at Dumbarton

Date, First Survey 12.10.28

Last Survey 24.9.1929

on the

H. V. "Annadale"

(Number of Visits 59)

Gross 5066

Tons

Net 3079

Master

Built at Dumbarton By whom built W. Denny & Co. Ltd.

Yard No. 1223

When built 1929

Engines made at

Dumbarton

By whom made W. Denny & Co. Ltd.

Engine No. 973

When made 1929

Boilers made at

Dumbarton

By whom made W. Denny & Co. Ltd.

Boiler No. 973

When made 1929

Nominal Horse Power

Owners Australind S. S. Co. Ltd.

Port belonging to

London.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Jas. Dunlop & Co. Ltd.

(Letter for Record S.)

Total Heating Surface of Boilers

660 sq ft

Is forced draught fitted

No

Coal or Oil fired

Oil

No. and Description of Boilers

1 - Multitubular

Working Pressure

125

Tested by hydraulic pressure to

238

Date of test

30.7.29

No. of Certificate

18379

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

✓

No. and Description of safety valves to each boiler

2 - S. L. H. L.

Area of each set of valves per boiler

{ per Rule
as fitted

4.3 sq ft

Pressure to which they are adjusted

130

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 or uptakes and bunkers or woodwork

Will clear

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

Will clear

Is the bottom of the boiler insulated

No

Largest internal dia. of boilers

8' 9"

Length

9' 0"

Shell plates: Material

S.

Tensile strength

26.32

Thickness

9/16"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

J. R.

long. seams

J. R. D. B. S.

Diameter of rivet holes in

{ circ. seams
long. seams

13/16"

Pitch of rivets

2.76"

4 3/16"

Percentage of strength of circ. end seams

{ plate
rivets

70.5

Percentage of strength of circ. intermediate seam

{ plate
rivets

54.79

Percentage of strength of longitudinal joint

{ plate
rivets

82

Working pressure of shell by Rules

129

Thickness of butt straps

{ outer
inner

7/16"

No. and Description of Furnaces in each Boiler

1 - Morrison

Material

S.

Tensile strength

26.30

Smallest outside diameter

42 1/8"

Length of plain part

{ top
bottom

7/16"

Thickness of plates

{ crown
bottom

7/16"

Description of longitudinal joint

Weld

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

None

Working pressure of furnace by Rules

146

End plates in steam space: Material

S.

Tensile strength

26.30

Thickness

13/16"

Pitch of stays

22d

How are stays secured

J. N.

Working pressure by Rules

125

Tube plates: Material

{ front
back

S.

Tensile strength

26.30

Thickness

13/16"

Mean pitch of stay tubes in nests

10.32"

Pitch across wide water spaces

12"

Working pressure

{ front
back

185

Girders to combustion chamber tops: Material

S.

Tensile strength

26.32

Depth and thickness of girder

at centre

6 1/2" x 1"

Length as per Rule

24"

Distance apart

9"

No. and pitch of stays

in each

2.9" x 7 1/2"

Working pressure by Rules

140

Combustion chamber plates: Material

S.

Tensile strength

26.30

Thickness: Sides

17/32"

Back

9/16"

Top

17/32"

Bottom

17/32"

Pitch of stays to ditto: Sides

9 3/8" x 8"

Back

9 1/4" x 8 1/2"

Top

9" x 7 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

131

Front plate at bottom: Material

S.

Tensile strength

26.30

Thickness

13/16"

Lower back plate: Material

S.

Tensile strength

26.30

Thickness

13/16"

Pitch of stays at wide water spaces

Will clear

Are stays fitted with nuts or riveted over

✓

Working Pressure

2 1/8"

Main stays: Material

S.

Tensile strength

28.32

Diameter

{ At body of stay,
or
Over threads

2 1/8"

No. of threads per inch

9

Area supported by each stay

484 sq in

Working pressure by Rules

130

Screw stays: Material

S.

Tensile strength

26.30

Diameter

{ At turned off part,
or
Over threads

1 3/8"

No. of threads per inch

9

Area supported by each stay

78 sq in

005397-005402-0040

Working pressure by Rules **135** Are the stays drilled at the outer ends Margin stays: Diameter { At turned off part, or Over threads **1 1/2"**

No. of threads per inch **9** Area supported by each stay **76"** Working pressure by Rules **140**

Tubes: Material **Iron** External diameter { Plain **3"** Stay **3"** Thickness { **10 L.S.G.** **5/16** No. of threads per inch **9**

Pitch of tubes **4 1/8" x 4 1/8"** Working pressure by Rules **140** Manhole compensation: Size of opening in shell plate **17" x 13"** Section of compensating ring **30" x 30"** No. of rivets and diameter of rivet holes **34 x 13/16"**

Outer row rivet pitch at ends **5 1/2"** Depth of flange if manhole flanged Steam Dome: Material

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 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 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, Manufacturer.

M. J. Wisnors

Dates of Survey { During progress of work in shops - - See Accompanying machy Report Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

while building { During erection on board vessel - - Total No. of visits **59**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) **This boiler has been built under special survey in accordance with the approved plan, and the Society's Rules, and requirements, the materials, and workmanship are good, it has been securely fitted on board, and the safety valves adjusted under steam.**

Survey Fee ... £ **4 : 4 : 0** When applied for, **2 OCT 1929**

Travelling Expenses (if any) £ ... When received, **11-10-1929**

Jas. Staines
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 2 OCT 1929**

Assigned **See Accompanying machy Report**