

REPORT ON BOILERS.

No. 12503

Received at London Office

DEC 6 1939

Date of writing Report

10

When handed in at Local Office

12. 10. 39 Port of Belfast

No. in Survey held at
Reg. Book

Belfast

Date, First Survey

11th September

Last Survey

28th November 1939

on the

Adelaide Star

(Number of Visits 9)

Gross
Tons
Net

Built at Copenhagen

By whom built Burmeister & Wain

Yard No. 646

When built

Engines made at

By whom made

Engine No.

When made

Boilers made at

By whom made

Boiler No.

When made

Owners

Port belonging to

VERTICAL DONKEY BOILER.

Made at Belfast

By whom made

Harland & Wolff Ltd.

Boiler No. 15189

When made 1939

Where fixed

Manufacturers of Steel

Colvilles Ltd.

Total Heating Surface of Boiler

775

oil fired 300 ft

Is forced draught fitted

Coal or Oil fired & Inland gas

No. and Description of Boilers

One Blanken Composite

6109/775

Working pressure 80 lbs

Tested by hydraulic pressure to

160 lbs

Date of test

28th November 1939

No. of Certificate 1064

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

One Double-Spring

Area of each set of valves per boiler

per rule 7.07
as fitted 7.96

Pressure to which they are adjusted

Are they fitted with easing gear

State whether steam from main boilers can enter the donkey boiler

Smallest distance between boiler or uptake and bunkers

woodwork

Is oil fuel carried in the double bottom under boiler

Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated

Largest internal dia. of boiler

5' 10 3/8"

Height overall 16' 9"

Shell plates: Material

Steel

Tensile strength

28/32 2000

Thickness

7/8"

Are the shell plates welded or flanged

welded at ends of
butt joint

Description of riveting: circ. seams

end D.R.L.
inter

long. seams D.R., D.B.S.

Dia. of rivet holes in

circ. seams 1 1/8"

Pitch of rivets

3 1/2"

Percentage of strength of circ. seams

plate 64.3
rivets 66

of Longitudinal joint

plate 73.5
rivets 82
combined

Shrinkable tube holes

1 1/8"

Shrinkable tubes 7"

Working pressure of shell by rules

147 lbs

Thickness of butt straps

outer 9/16"

inner 7/16"

Shell Crown:

Whether complete hemisphere, dished partial spherical, or flat

dished partly spherical

Material

Steel

Tensile strength

28/30 2000

Thickness

2 1/2"

Radius

5' 6"

Working pressure by rules

94.5 lbs

Description of Furnace:

Plain, spherical, or dished crown

dished crown

Material

Steel

Tensile strength

26/30 2000

Thickness

1 1/2"

External diameter

top 27 9/16"
bottom

Length as per rule

7' 0"

Working pressure by rules

111.5 lbs

Pitch of support stays circumferentially

and vertically

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Radius of spherical or dished furnace crown

8' 0"

Working pressure by rule

206 lbs

Thickness of

bottom dished crown

3/4"

Diameter as per rule

D

Working pressure by rule

136 lbs

Combustion Chamber: Material

Tensile strength

Thickness of top plate

Dia. if dished

Working pressure by rule

Thickness of back plate

Diameter if circular

Length as per rule

Pitch of stays

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Working pressure of back plate by rules

Tube Plates: Material

front

Tensile strength

Thickness

Mean pitch of stay tubes in nests

Comprising shell, Dia. as per rule

front

Pitch in outer vertical rows

back

Dia. of tube holes FRONT

stay

BACK

stay

plain

plain

Each alternate tube in outer vertical rows a stay tube

Working pressure by rules

front

back

Stays to combustion chamber tops: Material

Tensile strength

Width and thickness of girder at centre

Length as per rule

Distance apart

No. and pitch of stays in each

Working pressure by rule

© 2019

Lloyd's Register
Foundation

W292-0032

5.P.N^o12503.

Crown stays: Material _____ Tensile strength _____ Diameter { at body of stay, or over threads _____

No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____

Screw stays: Material _____ Tensile strength _____ Diameter { at turned off part, or over threads _____ No. of threads per inch _____

Area supported by each stay _____ Working pressure by rules _____ Are the stays drilled at the outer ends _____

Tubes: Material Thimble tubes steel ✓ External diameter { plain 3 1/4" outer shell ✓ stay 2 3/4" inner shell ✓ Thickness { as approved ✓

No. of threads per inch ✓ Pitch of tubes { circ + long { 6"x7" outer shell ✓ 6.283"x6" inner shell ✓ Working pressure by rules as approved ✓

Manhole Compensation: Size of opening in shell plate 16"x12" ✓ Section of compensating ring 6"x1 3/8" ✓ No. of rivets and diameter of rivet holes 36 - 1 1/4" ✓ Outer row rivet pitch at ends 6.28" ✓ Depth of flange if manhole flanged as manhole 3" ✓

Uptake: External diameter 21 1/16" ✓ Thickness of uptake plate 1 7/32" ✓

Cross Tubes: No. ✓ External diameters { _____ Thickness of plates ✓

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes

The foregoing is a correct description,
For HARLAND AND WOLFF, LIMITED.
A. J. Marshall Manufacturer.
SECRETARY.

Dates of Survey { During progress of work in shops - - } Sept. 11-20-22 Oct 3-12-27 Nov. 7. 21-28-1939 Is the approved plan of boiler forwarded herewith (If not state date of approval.) Yes ✓

while building { During erection on board vessel - - } _____ Total No. of visits 9

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. "Wellington Star" Del. Rpt. No. 12451

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

This boiler has been constructed under Special Survey to an approved design. The materials and workmanship are good. It has been tested by hydraulic pressure in accordance with the Rules and is eligible, in my opinion, for use on a vessel classed with the Society.

Survey Fee £ 4 : 4 : - When applied for, 4. 12. 39

Travelling Expenses (if any) £ : : When received, 29/4 19 40

Committee's Minute FRI. 4 JAN 1946

Assigned No Action

R. Lee Ames
Engineer Surveyor to Lloyd's Register of Shipping.
Lloyd's Register Foundation