

REPORT ON BOILERS.

AIR RECEIVERS

GLASGOW REPORT No. 47350

No. 9765

Received at London Office

29 JUN 1927

DEC 1927

Date of writing Report

19

When handed in at Local Office

28-6-1927 Port of Belfast

No. in Survey held at
Reg. Book.

Belfast

Date, First Survey

25 March

Last Survey

24 June 1927

(Number of Visits)

5

Gross
Tons
Net

on the

M. V. "PAULA"

Built at

By whom built

Yard No.

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

AIR RECEIVERS

~~VERTICAL DONKEY BOILER~~

Made at Belfast

By whom made

Harland & Wolff Ltd

Boiler No.

748 G.

When made

1927

Where fixed

Manufacturers of Steel

David Colville & Sons Ltd.

Capacity of each Receiver

250 f

Total Heating Surface of Boiler

Is forced draught fitted

Coal or Oil fired

No. and Description of Boilers

Three dome-ended cylindrical riveted

Working pressure 356 lb

Tested by hydraulic pressure to

712 lb sq in

Date of test

22.6.27

Lloyd's No. of Certificate

47

~~Area of Firegrate in each Boiler~~~~No. and Description of safety valves to each boiler~~

Area of each set of valves per boiler

per rule
as fitted

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

or 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

60"

Height 14'-3"

Shell plates: Material

Steel

Tensile strength

78-82 tons

Thickness

3/32"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end double
inter

long. seams helix d. b.s.

Dia. of rivet holes in

circ. seams 1 1/16"
long. seams 1 5/16"

Pitch of rivets

2.98"
6 1/16"

Percentage of strength of circ. seams

plate 64.3
rivets 59.7

of Longitudinal joint

plate 87.9
rivets 94.1
combined 100

Working pressure of shell by rules

37 1/2 lb.

Thickness of butt straps

outer 2 1/32"
inner 2 1/32"

Shell Crown

Whether complete hemisphere, dished partial spherical, or flat dished partial spherical

Material Steel

Tensile strength

26-30 tons

Thickness

7/8" and 1"

Radius

36"

Working pressure by rules

364 lb.

Description of Furnace: Plain, spherical, or dished crown

Material

Tensile strength

Thickness

External diameter

top
bottom

Length as per rule

Working pressure by rules

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

Working pressure by rule

Thickness of Ogee Ring

Diameter as per rule

D
d

Working pressure by rule

Combustion Chamber: Material

Tensile strength

Thickness of top plate

Radius 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
back

Tensile strength

Thickness

Mean pitch of stay tubes in nests

If comprising shell, Dia. as per rule

front
back

Pitch in outer vertical rows

Dia. of tube holes FRONT

stay
plain

BACK

stay
plain

Is each alternate tube in outer vertical rows a stay tube

Working pressure by rules

front
back

Girders to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder at centre

Length as per rule

Distance apart

No. and pitch of stays in each

Working pressure by rule

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Foundation

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 _____ External diameter { plain _____ stay _____ } Thickness { _____ }
 No. of threads per inch _____ Pitch of tubes _____ Working pressure by rules _____
Manhole Compensation: Size of opening in shell ^{end} ~~plate~~ 16" x 12" Section of compensating ring _____ No. of rivets and diameter of rivet holes _____
 Outer row rivet pitch at ends _____ Depth of flange if manhole flanged 3 1/2"
Uptake: External diameter _____ Thickness of uptake plate _____
Cross Tubes: No. _____ External diameters { _____ } Thickness of plates _____
 Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with _____

The foregoing is a correct description,
FOR HARLAND AND WOLFF, LIMITED.

As Marshall Manufacturer.
 Assistant Secretary.

Dates of Survey { During progress of work in shops - - } ¹⁹²⁷ Mar 25 May 2 11 June 23 24 = 5 Is the approved plan of boiler forwarded herewith ^{Approved} 18.6.26.
 while building { During erection on board vessel - - } (If not state date of approval.)
 Total No. of visits _____

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

These Receivers have been built under Special Survey. The material and workmanship are sound and good. They have been satisfactorily tested by hydraulic pressure. In my opinion these receivers are eligible for fitting on a classed vessel.

The Receivers have been shipped to Glasgow for installing on the vessel.

These three air reservoirs have been properly fitted on board the ship at Glasgow. The safety valves have been adjusted to the working pressure of 356 lbs./in².

J. D. Boyle
 28/11/27.

Survey Fee ... £ 9 : 9 - } When applied for, 28-6-27
 Travelling Expenses (if any) £ : : } When received, 8.9.27. paid.

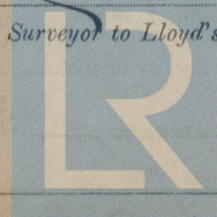
R. Lee Ames

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 6 - DEC 1927

Assigned Sec. 26. Rpt. No. 47350



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