

# REPORT ON AIR RESERVOIRS BOILERS.

No. 9850

Received at London Office

14 MAR 1928

Date of writing Report

19

When handed in at Local Office

19 Oct. 1927 Port of

Belfast.

No. in Reg. Book

Survey held at

Date, First Survey

2 Aug

Last Survey

17 Oct 1927

(Number of Visits 5)

Gross

Tons

Net

on the

M. V. "PONZANO"

Built at

Glasgow

By whom built

Messrs Harland & Wolff Ltd

Yard No. 745

When built 1928-3

Engines made at

do

By whom made

do

Engine No. 745

When made 1928-3

Boilers made at

✓

By whom made

✓

Boiler No.

When made

✓

Owners

Messrs MacAndrew & Co Ltd

Port belonging to

Liverpool

## AIR RESERVOIR

### ~~VERTICAL DONKEY BOILER~~

Made at

Belfast ✓

By whom made

Harland & Wolff Ltd ✓

Boiler No. 745 G ✓

When made 1927

Where fixed

Manufacturers of Steel

Sd Colville & Sons Ltd ✓

Total Heating Surface of Boiler

Capacity 610 sq ft ✓

Is forced draught fitted

Coal or Oil fired

No. and Description of Boilers

One dome-ended cylindrical hull ✓

Working pressure 356 lb. ✓

Tested by hydraulic pressure to

584 lb. ✓

Date of test

17<sup>th</sup> October 1927 ✓

Lloyd's No. of Certificate

58 ✓

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

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

76 3/16" ✓

Length

21'-9" ✓

Shell plates: Material

Steel ✓

Tensile strength

28-32 tons

Thickness

1 3/32" ✓

Are the shell plates welded or flanged

No. ✓

Description of riveting: circ. seams

end SR ✓  
inter. SR ✓

long. seams

J.R., S.B.S. ✓

Dia. of rivet holes in

circ. seams 1 5/16" ✓  
long. seams 1 3/16" ✓

Pitch of rivets

3-3/8" ✓  
8" ✓

Percentage of strength of circ. seams

plate 60.9  
rivets 60.4

of Longitudinal joint

plate 85.1  
rivets 97.4  
combined 89.7

Working pressure of shell by rules

378 lb.

Thickness of butt straps

outer 27/32" ✓  
inner 21/32" ✓

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat

dished partial spherical ✓

Material Steel ✓

Tensile strength

26-30 tons ✓

Thickness

1 7/32" ✓  
1 11/32" ✓

Radius

51" ✓

Working pressure by rules

358 lb.

Description of Furnace: Plain, spherical, or dished crown

Material

Tensile strength

Thickness

External diameter

top

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

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

Tensile strength

Thickness

Mean pitch of stay tubes in nests

If comprising shell, Dia. as per rule

front

Pitch in outer vertical rows

back

Dia. of tube holes FRONT

stay

BACK

stay

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

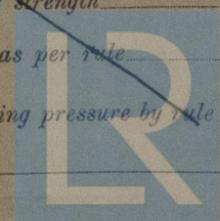
Length as per rule

Distance apart

No. and pitch of stays in each

Working pressure by rule

W467-0015



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**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 <sup>END</sup> shell 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 4"

**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.**  
*Feilcke* Manufacturer.

Dates of Survey { During progress of work in shops - - } 1927 Aug 2-23. Sept. Oct 5-17 = 5 Is the approved plan of boiler forwarded herewith (If not state date of approval.) \_\_\_\_\_  
while building { During erection on board vessel - - } \_\_\_\_\_ Total No. of visits \_\_\_\_\_

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

This Air Reservoir has been constructed under special survey. The materials and workmanship are sound and good. It has been satisfactorily tested by hydraulic pressure in accordance with the rules. In my opinion the reservoir is eligible for installation on a closed vessel.

This Air Reservoir has been properly fitted in the M.V. "Ponzano". Fusible plugs are fitted to the Reservoir and 2 - 1 3/4" spring loaded safety valves in the pipe line have been adjusted to the working pressure of 350 lbs./in<sup>2</sup>.

*J. Doyle*  
Glasgow 9/3/28

Survey Fee ... .. £ 4 : 4 : } When applied for, 19 Oct 27  
Travelling Expenses (if any) £ : : } When received, 10/11/28

*R. Lee Annes*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 13 MAR 1928**  
Assigned See Gls Rph. No. 47675.

