

GLASGOW REPORT No 48200  
AIR RESERVOIRS.  
**REPORT ON BOILERS.** No. 9885

Received at London Office 28 DEC 1927 25 DEC 1928

Date of writing Report 19 When handed in at Local Office 23<sup>rd</sup> Dec. 1927 Port of Belfast

No. in Reg. Book Survey held at Belfast Date, First Survey 2<sup>nd</sup> Nov. Last Survey 19<sup>th</sup> Dec 1927  
on the M.V. "Chylfield" (Number of Visits 2) Gross 6758 Tons Net 3949

Built at Glasgow By whom built D. W. Henderson & Co Yard No. 808 When built 1928  
Engines made at do By whom made Harland & Wolff Ltd Engine No. 808 When made 1928  
Boilers made at do By whom made D. W. Henderson & Co Boiler No. 808 When made 1928  
Owners Hunting & Son Ltd Port belonging to Newcastle

**AIR RESERVOIRS.**  
**VERTICAL DONKEY BOILER.**

Made at Belfast By whom made Harland & Wolff Ltd Boiler No. 808 M. When made 1927 Where fixed

Manufacturers of Steel DA. Colville & Sons Ltd.

Capacity of each Total Heating Surface of Boiler 800 sq ft Is forced draught fitted Coal or Oil fired

No. and Description of Boilers Two cylindrical steel built reservoirs Working pressure 356 lbs

Tested by hydraulic pressure to 584 lbs Date of test 19<sup>th</sup> Dec. 1927 Lloyd's No. of Certificate 63

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 76 1/8" Length 28'0" Height

Shell plates: Material Steel Tensile strength 28-32 tons Thickness 1 1/16"

Are the shell plates welded or flanged No. Description of riveting: circ. seams { end D.R. inter D.R. long. seams 2 R

Dia. of rivet holes in { circ. seams 1 5/16" long. seams 1 3/16" Pitch of rivets { 3-36" 8" Percentage of strength of circ. seams { plate 60.9 rivets 62.2 of Longitudinal joint { plate 85.1 rivets 100 combined 90.3

Working pressure of shell by rules 364 lbs Thickness of butt straps { outer 1 1/16" inner 5/16"

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

Tensile strength 26-30 tons Thickness 1 3/32" 1 1/32" Radius 51" Working pressure by rules 358 lbs

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



**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 HARCAND AND WOLFF, LIMITED,**  
*Felebbeck* Manufacturer.

Dates of Survey { During progress of work in shops - Nov 2 Dec 19 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 2

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

*These Air Reservoirs have been constructed under special survey and to an approved plan. The materials and workmanship are sound & good. They have been tested by hydraulic pressure with satisfactory results.*

*These Reservoirs are to be installed on board a vessel constructing on the Clyde.*

Survey Fee ... £ 8 : 8 : } When applied for, 23<sup>rd</sup> Dec 1927

Travelling Expenses (if any) £ : : } When received, 3 2 19 28 (Lan Ltr)

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

Committee's Minute GLASGOW 24 JUL 1928 *WYH*  
Assigned See Accompanying Machy Report