

REPORT ON BOILERS.

No. 18,303

3 SEP 1941

Received at London Office

Date of writing Report 19 When handed in at Local Office 19 Port of **SYDNEY, N.S.W.**

No. in Reg. Book **SYDNEY, N.S.W.** 78768 on the **S.S. "MAIWARA"** Date, First Survey **15/10/40** Last Survey **29/5/1941**

(Number of Visits **4**) Tons { Gross **621** Net **331**

Built at **Danzig** By whom built **International S.B. & E.C. Ltd.** Yard No. **41** When built **1924**

Engines made at **Danzig** By whom made **International S.B. & E.C. Ltd.** Engine No. **206** When made **1924**

Boilers made at **Danzig** By whom made **International S.B. & E.C. Ltd.** Boiler No. **513** When made **1924**

Owners **Chalco Pty. Co. Ltd.** Port belonging to **Glasgow**

VERTICAL DONKEY BOILER.

Made at **Danzig** By whom made **International S.B. & E.C. Ltd.** Boiler No. **513** When made **1924** Where fixed **Fore-Steer side of Stowhead**

Manufacturers of Steel **✓**

Total Heating Surface of Boiler **376 sq. ft.** Is forced draught fitted **No** Coal or Oil fired **Coal**

No. and Description of Boilers **One, Vertical** Working pressure **110 lb. ^{117.6 lb. ^{no more required.}}**

Tested by hydraulic pressure to **✓** Date of test **✓** No. of Certificate **✓**

Area of Firegrate in each Boiler **16.14 ^{13.6}** No. and Description of safety valves to each boiler **Two, spring loaded**

Area of each set of valves per boiler { per rule **4.3 ⁵** as fitted **5.16 ⁵** Pressure to which they are adjusted **110 lb. ^{117.6 lb. ^{no more required.}}** Are they fitted with easing gear **✓**

State whether steam from main boilers can enter the donkey boiler **No** Smallest distance between boiler or uptake and bunkers or woodwork **2'-0"** Is oil fuel carried in the double bottom under boiler **No** Smallest distance between base of boiler and tank top plating **15"** Is the base of the boiler insulated **No** Largest internal dia. of boiler **62.99"** Height **151.5"**

Shell plates: Material **Siemens Martin Steel** Tensile strength **28 tons ²⁸** Thickness **.51"**

Are the shell plates welded or flanged **No** Description of riveting: circ. seams { end **Single Lap** inter **Single Lap** long. seams **Double Lap**

Dia. of rivet holes in { circ. seams **.905"** long. seams **.905"** Pitch of rivets { **2.2"** **2.45"** Percentage of strength of circ. seams { plate **58.8** rivets **47.25** of Longitudinal joint { plate **69.5** rivets **70** combined **✓**

Working pressure of shell by rules **154.4 lb. ¹¹⁸ per sq. inch** Thickness of butt straps { outer **✓** inner **✓**

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat **Dished** Material **S. M. Steel** Tensile strength **22-26 Tons** Thickness **.75"** Radius **59.05"** Working pressure by rules **150 lb. ¹¹²**

Description of Furnace: Plain, spherical, or dished crown **Dished** Material **S. M. Steel** Tensile strength **22-26 Tons**

Thickness **.7"** External diameter { top **49.21"** bottom **53.14"** Length as per rule **✓** Working pressure by rules **128 lb. ¹²³**

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 **49.21"** Working pressure by rule **123 lb. ¹²³**

Thickness of Ogee Ring **.62"** Diameter as per rule { D **62.9"** d **57"** Working pressure by rule **133 lb. ¹³³**

Combustion Chamber: Material **S. M. Steel** Tensile strength **22-26 Tons** Thickness of top plate **.70"**

Radius if dished **49.21"** Working pressure by rule **119 lb. ¹¹⁹** Thickness of back plate **.62"** Diameter if circular **✓**

Length as per rule **✓** Pitch of stays **11.02" x 11.81"** Are stays fitted with nuts or riveted over **No**

Diameter of stays over thread **1.485"** Working pressure of back plate by rules **128 lb. ¹²⁸**

Tube Plates: Material { front **S. M. Steel** back **S. M. Steel** Tensile strength { **22-26 Tons** **22-26 Tons** Thickness { **.7"** **.7"** Mean pitch of stay tubes in nests **8.85"**

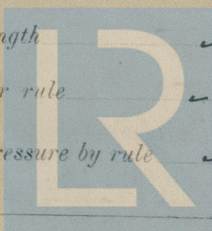
comprising shell, Dia. as per rule { front **3.54"** back **3.54"** Pitch in outer vertical rows { **3.54"** **3.54"** Dia. of tube holes FRONT { stay **2.63"** plain **2.55"** BACK { stay **2.46"** plain **2.49"**

each alternate tube in outer vertical rows a stay tube **No** Working pressure by rules { front **225 lb. ²²⁵** back **225 lb. ²²⁵**

Stays 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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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 *Steel* Tensile strength *22-26 Tm* Diameter ☒ at turned off part, ☒ or over threads. *1.49"* No. of threads per inch *11*
 Area supported by each stay *102.3* ^{sq} Working pressure by rules *130 lb* ^{sq} Are the stays drilled at the outer ends ☒
Tubes: Material *Steel* External diameter ☒ plain *2.499"* Thickness ☒ *1.279"* stay *2.499"* *1.96"*
 No. of threads per inch *11* Pitch of tubes *3.54"* Working pressure by rules *236 lb* ^{sq}
Manhole Compensation: Size of opening in shell plate *15.74" x 11.81"* Section of compensating ring ☒ No. of rivets and diameter ☒
 of rivet holes ☒ Outer row rivet pitch at ends ☒ Depth of flange if manhole flanged *2.75"*
Uptake: External diameter ☒ Thickness of uptake plate ☒
Cross Tubes: No. ☒ External diameters ☒ Thickness of plates ☒

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

The foregoing is a correct description.

Manufacturer.

Dates of Survey ☒ During progress of work in shops - -
 while building ☒ During erection on board vessel - -

Is the ~~approved~~ plan of boiler forwarded herewith (If not state date of approval.) *Yes*

Total No. of visits

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

This russels donkey boiler was built by the International S. B. & E. Co. Ltd. Glasgow, 1924 to the Germanischer Lloyd Class, and now examined internally & externally with mountings & steam pipes, with a view to obtaining the Society's Classification. The signs as given in plan verified & found correct. The firebox specially examined, & found free of corrosion or distortion, the material and workmanship good, and the boiler inside & outside in good condition. The safety valves have been adjusted to 110 lb per sq inch, and seen blowing freely at that pressure, and in my opinion this donkey boiler is eligible for Classification with the Society, subject to the Committee's approval.

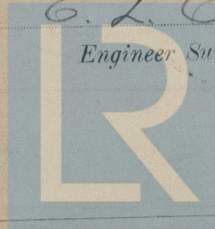
Survey Fee *Entered on Rpt 4.* £ : : When applied for, 19
 Travelling Expenses (if any) £ : : When received, 19

Committee's Minute
 Assigned

See Syd 26. 18305

TUE. 23 SEP 1941

E. L. Cartwright.
 Engineer Surveyor to Lloyd's Register of Shipping.



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