

# REPORT ON WATER TUBE BOILERS.

No. 19560. (b)

Received at London Office

t. 5c.

of writing Report 14<sup>th</sup> March 1944 When handed in at Local Office

19

Port of **Sydney, N. S. W.**

No. in  
g. Bk.

Survey held at **Newcastle N.S.W. & Whyalla S.A.** Date, First Survey **Oct 5<sup>th</sup> 1942** Last Survey **10<sup>th</sup> March 1944**

(Number of Visits **39**)

Tons { Gross **4914**  
Net **2627**

on the **S.S. "RIVER GLENELG"**

ster Built at **Whyalla** By whom built **Broken Hill Pty Co. Ltd** When built **1944**

ines made at **Port Kembla N.S.W.** By whom made **Australian Iron & Steel Ltd** When made **1944**

lers made at **Newcastle N.S.W. & Renfrew.** By whom made **Broken Hill Pty Co. Ltd & Babcock & Wilcox** When made **1944**

minat Horse Power **580** 566 Owners **Commonwealth of Australia** Port belonging to **Adelaide**

ATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel **Broken Hill Pty Co. Ltd**

etter for Record Date of Approval of plan **26/8/41** Number and Description or Type

Boilers **2 W.T. (B&W type)** Working Pressure **240 lbs** Tested by Hydraulic Pressure to **410 lbs** Date of Test **8/12/43**

of Certificate **2729 273** Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **2 @ 3606 = 7212 sq ft**

forced draught fitted **Yes** Area of fire grate (coal) in each Boiler **104.5 sq ft** Total grate area of boilers in vessel including

in and Auxiliary **209 sq ft** No. and type of burners (oil) in each boiler **3 B&W** Pressure **atomising** No. and description of safety valves on

h boiler **One double 2 1/2" High-Lift** Area of each **double** **9.82 sq ins** Pressure to which they are adjusted **240 lbs**

they fitted with easing gear **Yes** In case of donkey boilers state whether steam from main boilers can enter the donkey boiler

allest distance between boilers or uptakes and bunkers or woodwork Height of Boiler **approx 22' 9"** Width and Length **14' 6" x 17' 11"**

am Drums:—Number in each boiler **One** Inside diameter **3'-6"** Material of plates **Blk. quality M.S.** Thickness **3/32" & 1/16"**

age of Tensile Strength **28/32 tons** Are drum shell plates welded or flanged **No.** Description of riveting:—

seams **D.R.** long. seams **D.R. with D.B.S.** Diameter of rivet holes in long. seams **29/32"** Pitch of Rivets **3.5"**

of plate or width of butt straps **9 5/8" & 9 1/8"** Thickness of straps **19/32"** Percentage strength of long. joint:—Plate **74.1** Rivet **91.4**

diameter of tube holes in drum **4"** Pitch of tube holes **7"** Percentage strength of shell in way of tubes **44.4**

Drum has a flat side state method of staying Distance apart Number and pitch of stays in each Working pressure

rules **250 lbs** Steam Drum Heads or Ends:—Material **M.S. (flanging quality)** Thickness **15/16"** Radius or how stayed **3'-0"**

e of Manhole or Handhole **15" x 11"** Water Drums:—Number in each boiler **One** Inside Diameter **7 1/2" sq section**

terial of plates **M.S.** Thickness **3/4"** Range of tensile strength **28/32 tons** Are drum shell plates welded

ends **welded** Description of riveting:—Cir. seams long. seams Diameter of Rivet Holes in

g. seams Pitch of rivets Lap of plates or width of butt straps Thickness of straps

percentage strength of long. joint:—Plate Rivet Diameter of tube holes in drum **4 3/4"** Pitch of tube holes **7"**

percentage strength of drum shell in way of tubes Water Drum Heads or Ends:—Material Thickness

dus or how stayed Size of manhole or handhole Headers or Sections:—Number **19 per Boiler**

aterial **M.S.** Thickness **11/32" (min)** Tested by Hydraulic Pressure to **410 lbs** Material of Stays

ea at smallest part Area supported by each stay Working Pressure by Rules Tubes:—Diameter **4" & 1 1/8"**

ickness **1/4", 5 & 8 L.S.G** Number **590-1 1/2"** **57-4"** Steam Dome or Collector:—Description of Joint to Shell

percentage strength of Joint Diameter Thickness of shell plates Material

scription of longitudinal joint Diameter of Rivet Holes Pitch of Rivets Working Pressure of shell

Rules Crown or End Plates:—Material Thickness How stayed

PERHEATER. Type **"Interdeck"** Date of Approval of Plan **30/8/41** Tested by Hydraulic Pressure to **410 lbs**

tes of Test **8/12/43 & 21/12/43** Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler **Yes**

diameter of Safety Valve **2 1/2" (High Lift)** Pressure to which each is adjusted **220 lbs** Is easing gear fitted **Yes**

a drain cock or valve fitted at lowest point of superheater **Yes** Number, diameter, and thickness of tubes **84 - 1 1/2" - 8 L.S.G.**

are Gear. Tubes **18** Gaskets or joints:—Manhole **6** Handhole **1000** Handhole plates **12**

**4" - 5 LSG top & 3 LSG bottom**

**1 1/8" - 8 LSG**

The foregoing is a correct description,

SHIPBUILDING YARD **WHYALLA** Manufacturer.

Dates { During progress of **1942:—Oct 5, 28<sup>th</sup> Dec 18, 21<sup>st</sup> 1943:—Feb 10<sup>th</sup>** Is the approved plan of boiler forwarded herewith **No**

Survey { work in shops - - - **March 10<sup>th</sup> May 21 June 28<sup>th</sup> July 1, 2<sup>nd</sup> Aug 10<sup>th</sup>**

while { During erection on **1943:—Aug 14<sup>th</sup> 20<sup>th</sup> Sept 2, 12, 21, 24, 30, Oct 11, 21, 30** Total No. of visits **39.**

ilding { board vessel - - - **Nov 8, 15, 29 Dec 7, 20, 22 1944:—Jan 12, 14, 24 Feb 9, 13, 25, 26, 28, 29 March 1, 2, 10.**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *The Boilers and Superheaters of this Vessel have been built under special survey in accordance with the Rules & approved laws & the materials & workmanship are good. They have been fitted on board in an efficient manner & with their mechanical stokers & oil burning installation, tested under working conditions found satisfactory - now eligible for record recommended in Machinery Report.*

Survey Fee ... £ ... When applied for, 19  
Travelling Expenses (if any) £ ... When received, 19  
Fee charged on Machy. Rpt. *E.G. Hughes. & J. McEwan*  
Engineer Surveyors to Lloyd's Register of Shipping

Committee's Minute **THURS 11 MAY 1944**  
Signed *See p. machy rpt.*