

Rpt. 5c.

# REPORT ON WATER TUBE BOILERS.

No. 41284

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Date of writing Report June 4<sup>th</sup> 1922 When handed in at Local Office June 4<sup>th</sup> 1922 Port of Glasgow

No. in Survey held at Renfrew Date, First Survey 8. 9. 1919 Last Survey 16. 8. 1920

Reg. Bk. Three Babcock & Wilcox Boilers S.S. "EUWARA" Number of Visits 7 Tons { Gross 3348.92 Net 1907.24

Master Port Adelaide Built at Port Adelaide By whom built POOLE & STEEL When built 6. 22.

Engines made at Port Adelaide By whom made POOLE & STEEL When made 6. 22.

Boilers made at Renfrew By whom made Babcock & Wilcox Ltd (1001) When made 6. 22.

Registered Horse Power 576. 516 Owners Australian Commonwealth Port belonging to Newcastle N.S.W.

## WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel D. Colville & Sons

(Letter for Record 3 Babcock & Wilcox) Date of Approval of plan 200 lbs Number and Description or Type 8289

No. of Certificate 40 Can each boiler be worked separately Yes Total Heating Surface of Boilers 8289

Is forced draught fitted Assisted Area of fire grate (coal) in each Boiler 84.5 Total grate area of boilers in vessel including Main and Auxiliary 3 Main = 253.5 No. and type of burners (oil) in each boiler Coal burning No. and description of safety valves on each boiler Three double spring loaded Area of each valve 9.62 Pressure to which they are adjusted 185 lb

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

Smallest distance between boilers or uptakes and bunkers or woodwork 24" Height of Boiler 4'-0" Width and Length 7'-0" x 1'-0"

Steam Drums:—Number in each boiler One Inside diameter 4'-0" Material of plates Steel Thickness 3/4"

Range of Tensile Strength 28-32 Are drum shell plates welded or flanged No Description of riveting:—

Cir. seams DR. Lap long. seams DR. LBS Diameter of rivet holes in long. seams 3/32" Pitch of Rivets 3 3/4"

Lap of plate or width of butt straps 7" Thickness of straps 7/16" Percentage strength of long. joint:—Plate 75.8 Rivet 75.5

Diameter of tube holes in drum 3 3/32" Pitch of tube holes 7" x 5 3/4" Percentage strength of shell in way of tubes 43.3

If Drum has a flat side state method of staying — Depth and thickness of girders at centre (if fitted) — Distance apart — Number and pitch of stays in each — Working pressure by rules 210

Steam Drum Heads or Ends:—Material Steel Thickness 3/4" Radius or how stayed 4'-2"

Size of Manhole or Handhole 4'-0" Water Drums:—Number in each boiler One Diameter 7 1/2 sq.

Material of plates S Thickness 3/4" Range of tensile strength 26-30 Are drum shell plates welded or flanged Welded Description of riveting:—Cir. seams — long. seams — Diameter of Rivet Holes in long. 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 3.97 Pitch of tube holes 7"

Percentage strength of drum shell in way of tubes — Water Drum Heads or Ends:—Material Steel Thickness 3/4"

Radius or how stayed — Size of manhole or handhole 4 1/2 sq Headers or Sections:—Number 19

Material steel Thickness 7/32" Tested by Hydraulic Pressure to 700 lbs Material of Stays —

Area at smallest part — Area supported by each stay — Working Pressure by Rules — Tubes:—Diameter 1 1/8", 3 1/8"

Thickness 128, 144, 212, 192 Number 590 & 59 Steam Dome or Collector:—Description of Joint to Shell None

Percentage strength of Joint — Diameter — Thickness of shell plates — Material —

Description of longitudinal joint — Diameter of Rivet Holes — Pitch of Rivets — Working Pressure of shell by Rules —

Crown or End Plates:—Material — Thickness — How stayed —

## SUPERHEATER.

Type None Date of Approval of Plan — Tested by Hydraulic Pressure to —

Date of Test — Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler —

Diameter of Safety Valve — Pressure to which each is adjusted — Is easing gear fitted —

Is a drain cock or valve fitted at lowest point of superheater — Number, diameter, and thickness of tubes —

Spare Gear. Tubes Total 42 Gaskets or joints:—Manhole 26 Handhole 2000 Handhole plates 16

Survey Request Form No. 2293  
attached fls. rpt. No. 39894.

The foregoing is a correct description,  
(Sgd) Babcock & Wilcox Ltd. Manufacturer.

Dates of Survey { During progress of 1919 Sep. 8.30. Nov. 13, 1920 Jan. 21, Feb. 3, Apr. 15. Is the approved plan of boiler forwarded herewith —  
while { work in shops — Aug. 16.  
building { During erection on board vessel —

Total No. of visits 7

## GENERAL REMARKS

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

The workmanship & materials are of good quality. The workmanship has been carried out under special survey in accordance with the approved plans. Headers & mud drums have been tested as above. Ends dished & shell plates rolled but not drilled. The boilers are intended for Australian Commonwealth Standard vessels & the boiler parts have been despatched to Sydney where the boilers will be completed.

Survey Fee ... £ : : When applied for, 1922

Travelling Expenses (if any) £ : : When received, 191

FRI JUL 28 1922

Committee's Minute

Assigned

(Sgd) David B. Barr.  
Engineer Surveyor to Lloyd's Register of Shipping.

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