

# REPORT ON WATER TUBE BOILERS.

No. 9952.

Received at London Office

24 OCT 1927

Date of writing Report 3 9 1927 When handed in at Local Office 3 9 1927 Port of Sydney NSW & Brisbane

No. in Survey held at Melbourne and Maryborough Date, First Survey 8. 1. 21 Last Survey 25. 8 1927  
 Reg. Bk. 32056 on the Dredger "PLATYPUS II" (Number of Visits 18) Gross 1229 Tons Net 469  
 Master ✓ Built at Maryborough By whom built Walkers L<sup>d</sup> When built 1927  
 Engines made at Maryborough By whom made Walkers L<sup>d</sup> When made 1927  
 Boilers made at Melbourne + Maryborough By whom made C Russell L<sup>d</sup> and Walkers L<sup>d</sup> When made 1922 + 1927  
 Registered Horse Power 312 264 Total Owners Queensland Govt Port belonging to Brisbane

## WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel D. Colvilles Sons + Stewart + Lloyd

(Letter for Record 5) Date of Approval of plan 14. 3. 1919 Number and Description or Type of Boilers Two Babcock + Wilcox Working Pressure 200 Tested by Hydraulic Pressure to 350 Date of Test 23.6.22  
20.5.27

No. of Certificates 81 + 96 Can each boiler be worked separately yes Total Heating Surface of Boilers (2) 5526 sq. ft.

Is forced draught fitted yes Area of fire grate (coal) in each Boiler 84.5 sq. ft. Total grate area of boilers in vessel including Main and Auxiliary 169 sq. ft. No. and type of burners (oil) in each boiler ✓ No. and description of safety valves on each boiler 2, a 3 1/2" air Dross Spring Area of each valve 9.621 sq. in. Pressure to which they are adjusted 200 lbs

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

Smallest distance between boilers or uptakes and bunkers or woodwork 8'-0" Height of Boiler 14'-8" Width and Length 14'-0" x 12'-0"

Steam Drums:—Number in each boiler one Inside diameter 4'-0" Material of plates Steel Thickness 3/32

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

Cir. seams 2 R long. seams 3 R Lap + Butt Strap Diameter of rivet holes in long. seams 27/32 dia Pitch of Rivets 3 3/4

Lap of plate or width of butt straps 5" + 7" Thickness of straps 7/16 Percentage strength of long. joint:—Plate 75.8 Rivet 77.5

Diameter of tube holes in drum 3 5/16 Pitch of tube holes 7" Percentage strength of shell in way of tubes 43.7, F. S. 7

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 ✓

Steam Drum Heads or Ends:—Material Steel Thickness 13/16 Radius or how stayed 3-6" Rad

Size of Manhole or Handhole 15" x 11" Water Drums:—Number in each boiler ✓ Inside Diameter ✓

Material of plates ✓ Thickness ✓ Range of tensile strength ✓ Are drum shell plates welded or flanged ✓

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 ✓ Pitch of tube holes ✓

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

Radius or how stayed ✓ Size of manhole or handhole ✓ Headers or Sections:—Number 19

Material Mild Steel Thickness 17/32 Tested by Hydraulic Pressure to 350 lbs Material of Stays ✓

Area at smallest part ✓ Area supported by each stay ✓ Working Pressure by Rules ✓ Tubes:—Diameter 1 5/16" and 1 3/16"

Thickness 9 and 10 L.S.G. Number ✓ Steam Dome or Collector:—Description of Joint to Shell ✓

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 ✓ 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 ✓ Gaskets or joints:—Manhole ✓ Handhole ✓ Handhole plates ✓

WALKERS LIMITED  
*A. Goldsmith*  
The foregoing is a correct description,  
Manufacturer.

Dates of Survey while building } During progress of work in shops -- } At Melbourne } 7 (8.1.21) X 7 (1.21) X 9 (5.21) X 27 (5.21) X 30 (5.21) X 14 (6.21) X 26 (8.21) X 11 (4.22) (24.5.22) (23.6.22)  
 } " } " } Maryborough } 14.9.26 10.12.26 8.1.27 Is the approved plan of boiler forwarded herewith  
 } During erection on board vessel --- } " } " } 4.6.27 20.5.27 16.7.27 24.7.27 Total No. of visits 18  
 } " } " } " } " } " } 25.7.27

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Water Tube Boilers of Babcock and Wilcox Type have been constructed of good materials and workmanship, Drums made at Messrs Charles Russell Bros L<sup>d</sup> Melbourne and assembled and tested as per Rules at Walkers L<sup>d</sup> Maryborough L<sup>d</sup>, Safety Valves adjusted under steam to 200 lbs per Square inch.

Survey Fee ... £ : : When applied for, 19  
 Travelling Expenses (if any) £ : : See Machinery Report, included : : When received, 19  
A. C. Heran  
R. S. Dwyer  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 25 OCT 1927  
Assigned See M. 4/1

