

REPORT ON WATER TUBE BOILERS.

No. 4801 (c)

Received at London Office

Date of writing Report 18 - 11 - 1944 When handed in at Local Office 19 Port of BRISBANE

No. in Survey held at BRISBANE & SYDNEY, N.S.W. Date, First Survey 10 - 8 - 42 Last Survey 17 - 11 - 1944
 Reg. Bk. on the S.S. "RIVER FITZROY" (Number of Visits 49) } Gross 5107.9
 Tons } Net 2788.21
 Master Built at BRISBANE By whom built EVANS DEAKIN & CO. LTD When built 1944
 Engines made at ROCKLEA, BRISBANE By whom made COMMONWEALTH GOVERNMENT MARINE ENG. WORKS When made 1944
 Boilers made at SYDNEY, N.S.W. By whom made BABCOCK & WILCOX LTD. When made 1944
 NOMINAL Registered Horse Power 566 Owners COMMONWEALTH OF AUSTRALIA. Port belonging to BRISBANE.

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel BROKEN HILL PTY. CO. LTD.

(Letter for Record) Date of Approval of plan 26 - 8 - 41 Number and Description or Type of Boilers TWO WATER TUBE (BABCOCK & WILCOX TYPE) Working Pressure 240 LBS. Tested by Hydraulic Pressure to 410 LBS. Date of Test 6-3-44
 No. of Certificate 1393. (Syd) Can each boiler be worked separately YES. Total Heating Surface of Boilers 2 @ 3606 = 7212 sq ft
 Is forced draught fitted YES. Area of fire grate (coal) in each Boiler 104.5 sq ft Total grate area of boilers in vessel including Main and Auxiliary 209 sq ft No. and type of burners (oil) in each boiler 3 B.P.W. (PRESSURE ATOMISING) No. and description of safety valves on each boiler ONE DOUBLE 2 1/2" HIGH LIFT. Area of each valve 9.82 SQ. INS. Pressure to which they are adjusted 240 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 Height of Boiler APPROX 22' 9" Width and Length 14' 6" x 17' 0"
 Steam Drums:—Number in each boiler ONE Inside diameter 3' 6" Material of plates BOILER QUALITY M.S. Thickness 19/32" & 1 1/16"
 Range of Tensile Strength 28 - 32 TONS PER SQ. INCH Are drum shell plates welded or flanged NO. Description of riveting:—
 Cir. seams D.R. long. seams D.R. WITH D.B.S. Diameter of rivet holes in long. seams 29/32 INCHES Pitch of Rivets 3.5 INCHES
 Lap 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 INCHES Pitch of tube holes 7 INCHES Percentage strength of shell in way of tubes 74.4 OF 19/32" PLATE 42.85
 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 250 LBS. Steam Drum Heads or Ends:—Material M.S. (FLANGING QUALITY) Thickness 15/16 INCH Radius or how stayed 3' 0"
 Size of Manhole or Handhole 15" x 11" Water Drums:—Number in each boiler ONE Outside Diameter 7 1/2" SQUARE SECTION.
 Material of plates M.S. Thickness 3/4 INCH Range of tensile strength 28 - 32 TONS. Are drum shell plates welded or flanged WELDED ENDS SEE CLASGON CERT. 14.142 CAS078. 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 4 3/4 INCHES Pitch of tube holes 7 INCHES
 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 PER BOILER
 Material M.S. Thickness 11/32" MIN. Tested by Hydraulic Pressure to 410 LBS. Material of Stays
 Area at smallest part Area supported by each stay Working Pressure by Rules Tubes:—Diameter 4" & 1 1/2"
 Thickness 1/4", 5/8" & 8 L.S.G. Number 590 - 1 1/2" per boiler 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 "INTERDECK" Date of Approval of Plan 30 - 8 - 41 Tested by Hydraulic Pressure to 410 LBS.
 Date of Test 9 - 2 - 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.
 Is a drain cock or valve fitted at lowest point of superheater YES. Number, diameter, and thickness of tubes 84 - 1/2" - 8 L.S.G.
 Spare Gear. Tubes 18 Gaskets or joints:—Manhole 6 Handhole 1000 Handhole plates 12.

The foregoing is a correct description,
 BABCOCK & WILCOX LTD
 Manufacturer.

Dates of Survey } During progress of 1942 - Aug 10th 27th, Sept 11th, Oct 8th, Nov 11th, 16th. Is the approved plan of boiler forwarded herewith
 while building } 1943 - Jan 13th & 22nd
 } During erection on 1944 JAN. 25, FEB. 10, MAR. 1, 3, 6, 8, 13, 17, APRIL 5, 14, 27 Total No. of visits 49.
 } board vessel - - - MAY. 10, 22, 24, 31, JUNE 2, 8, 16, 20, 24, 26, 29, JULY 7, 10, 13, 19, 26, AUG. 7, 18, 28, SEPT. 8, 18, 29, OCT. 5, 16, 25, 31, NOV. 8, 14, 16, 17.

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 AND APPROVED PLANS AND THE MATERIALS AND WORKMANSHIP ARE GOOD. THEY HAVE BEEN FITTED ON BOARD IN AN EFFICIENT MANNER AND WITH THEIR MECHANICAL STOKERS AND OIL BURNING INSTALLATION, TESTED UNDER WORKING CONDITIONS AND 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.)

J. E. North & A. J. McManus
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute
 Assigned Su F.E. machy. a.p.h.

FRI. 26 JAN 1945

