

REPORT ON WATER TUBE BOILERS.

No. 2176

Date of writing Report 21st Dec. 1936 When handed in at Local Office

Received at London Office

-8 FEB 7

Port of WELLINGTON

No. in Survey held at WELLINGTON FLOATING DOCK, Date, First Survey 4th September Last Survey 11th Dec. 1936
 Reg. Bk. AND SLIP & FERRY WHARVES, WELLINGTON
 86336 on the STEAMER "WAHINE"
 Master - Built at DUMBARTON By whom built W. DENNY & BROS.
 Engines made at Dumbarton By whom made Denny & Co.
 Boilers made at Renfrew By whom made Babcock & Wilcox
 Registered Horse Power 1694 NHP Owners UNION STEAM SHIP CO. OF N.Z. LD Port belonging to LONDON
 Number of Visits 20 Tons Gross 4436 Net 1798
 When built 1913 5-mo.
 When made 1913
 When made 1935

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel

Letter for Record) Date of Approval of plan
 of Boilers 6 Babcock & Wilcox Oil fired Working Pressure 200 Lbs Tested by Hydraulic Pressure to 350 (see below) Number and Description or Type
 No. of Certificate Can each boiler be worked separately YES Total Heating Surface of Boilers 21384 ft² Date of Test
 forced draught fitted Closed stoke Area of fire grate (coal) in each Boiler
 Main and Auxiliary No. and type of burners (oil) in each boiler 4 Total grate area of boilers in vessel including
 each boiler One double spring loaded (2 valves) Area of each valve 9.62 ft² No. and description of safety valves on
 Are they fitted with easing gear YES In case of donkey boilers state whether steam from main boilers can enter the donkey boiler Pressure to which they are adjusted 200 Lbs
 Smallest distance between boilers or uptakes and bunkers or woodwork 1'-6" Height of Boiler 14'-9" Width and Length 17'-6" x 12'-0"
 Steam Drums:—Number in each boiler 1 Inside diameter 3'-6" Material of plates STEEL Thickness 1" & 17/32"
 Range of Tensile Strength 28-32 TONS PLATES & BUTT STRAPS Are drum shell plates welded or flanged FLANGED Description of riveting:—
 riv. seams DOUBLE RIV. LAP long. seams DOUBLE BUTT STRAP Diameter of rivet holes in long. seams 13/16" IN 27/32 HOLES Pitch of Rivets 3 9/32
 Lap of plate or width of butt straps 9 1/8 OUTER 8 5/8 INNER Thickness of straps 17/32 Percentage strength of long. joint:—Plate 74.35 Rivet 94.26
 Diameter of tube holes in drum 4" Pitch of tube holes 7" Percentage strength of shell in way of tubes 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
 Rules Steam Drum Heads or Ends:—Material STEEL Thickness 13/16" Radius or how stayed 3'-0"
 Size of Manhole or Handhole 15" x 10" Water Drums:—Number in each boiler 1 Inside Diameter SQUARE 6" x 6" INSIDE
 Material of plates STEEL Thickness 3/4" Range of tensile strength NOT KNOWN Are drum shell plates welded
 flanged FORGED SOLID 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 3 OF 23 & 3 OF 24
 Material 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) 4" & 1/4" TH
 Thickness 1 13/16 O.D. x 10 LSG. Number 200 4" DIA 2 3000 1 13/16" DIA 5 Steam Dome or Collector:—Description of Joint to Shell
 Percentage strength of Joint Thickness of shell plates Material
 Description of longitudinal joint Diameter of Rivet Holes Pitch of Rivets Working Pressure of shell
 Rules Crown or End Plates:—Material Thickness How stayed
 SUPERHEATER. Type NIL 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
 Easing Gear. Tubes Gaskets or joints:—Manhole Handhole Handhole plates

The foregoing is a correct description,

Manufacturer.

Dates } During progress of
 Survey } work in shops - - -
 while } During erection on
 loading } board vessel - - -

Is the approved plan of boiler forwarded herewith

Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Boilers assembled on board the vessel
 while lying alongside the Slip Wharf at Evans Bay, Wellington.

B & A4, B2, B3 & B4 Boilers - all pressure parts were renewed to the existing steam drums.

1 Boiler was renewed throughout.

The steam drums were stripped of all the mountings, all studs drawn and new studs of approved (P.T.O.)

Survey Fee ... £ 22 : - : - When applied for, 21st Dec. 1936

Travelling Expenses (if any) £ 1 : 15 : - When received, 19

Committee's Minute

TUE 23 FEB 1937

See other report

FRI 18 JUN 1937

FRI 18 JUN 1937

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register
Foundation

W1076-0138

material were fitted. Mountings rejointed on Boilers and were in place at the time of the tests.

All these parts were assembled in an approved manner, materials and workmanship being good. The Boilers were afterwards subjected to a satisfactory hydraulic test of duration of 20 minutes as follows:-

Boiler	Test Pressure	Date of Test
A3	300 Lbs sq. inch	3 - 11 - 36
A4	300 " " "	6 - 11 - 36
B1	350 " " "	28 - 10 - 36
B2	300 " " "	11 - 11 - 36
B3	300 " " "	29 - 10 - 36
B4	300 " " "	22 - 10 - 36

Copies of reports and test certificates sighted and marks verified - Certificates Nos C.30356, C.30356(a), C.30356(b), C.30356(c), C.30356(d) also B.O.T. No. C.M.21065/35.

For particulars of repairs to mountings, supports and casings see my Rpt 9 2176 of even date.

George D. Liagett

SURVEYOR TO LLOYD'S REGISTER
WELLINGTON · N.Z.



© 2019

Lloyd's Register
Foundation