

REPORT ON WATER TUBE BOILERS.

No. 49482

Received at London Office

-7 AUG 1929

Date of Writing Report 2/1/29 191 When handed in at Local Office 2/1/29 Port of Glasgow
 No. in Survey held at Renfrew Date, First Survey 19-9-28 Last Survey 25 July 1929
 Reg. Bk. on the BOILER No. 6/1239 Bucket Sledge S/S "Otakou" Number of Visits 35 Gross 1933 Tons Net 995
 Master Paisley Built at Paisley By whom built Fleming & Ferguson Ltd When built 1929
 Engines made at Paisley By whom made Fleming & Ferguson Ltd When made 1929
 Boilers made at Renfrew By whom made Babcock & Wilcox Ltd When made 1929
 Registered Horse Power 279 Owners Otago Harbour Board Port belonging to Dunedin

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

(Letter for Record S) Date of Approval of plan 20-9-28, 19-10-28 Number and Description of Type of Boilers 2 of Babcock & Wilcox type Working Pressure 130 Tested by Hydraulic Pressure to 245 Date of Test 4-6-29
 No. of Certificate 18322 Can each boiler be worked separately yes Total Heating Surface of Boilers 5250
 Is forced draught fitted yes (induce) Area of fire grate (coal) in each Boiler 3 off. Babcock & Wilcox type Total grate area of boilers in vessel including Main and Auxiliary 7.07 sq inches No. and type of burners (oil) in each boiler 3 off. Babcock & Wilcox type No. and description of safety valves on each boiler 1 Pair 3" dia compound H.L. Cochrum Area of each valve 7.07 sq inches Pressure to which they are adjusted 130 lbs
 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 3'-0" Height of Boiler 14'-6" Width and Length 12'-5" - 15'-2"
 Steam Drums:—Number in each boiler one Inside diameter 4'-0" Material of plates Steel Thickness 7/16" T.P. 1/16"
 Range of Tensile Strength 28-32 tons Are drum shell plates welded or flanged no Description of riveting D.R. Lap
 Cir. seams D.R. Lap long. seams D.R. D.B.S. Diameter of rivet holes in long. seams 25/32" Pitch of Rivets 3.102"
 Lap of plate or width of butt straps 8 1/2" MEAN Thickness of straps 7/16" Percentage strength of long. joint:—Plate 75 Rivet 112
 Diameter of tube holes in drum 4 3/4" Pitch of tube holes 7" Percentage strength of shell in way of tubes 97
 If Drum has a flat side state method of staying yes Depth and thickness of girders at centre (if fitted) yes Distance apart yes Number and pitch of stays in each yes Working pressure by rules yes
 Steam Drum Heads or Ends:—Material Steel Thickness 13/16" Radius or how stayed 3'-6"
 Size of Manhole or Handhole 15" x 11" MVD Water Drums:—Number in each boiler one Inside Diameter 6" x 6"
 Material of plates Steel Thickness 3/4" Range of tensile strength 24-28 tons Are drum shell plates welded or flanged Welded Description of riveting:—Cir. seams yes long. seams yes Diameter of Rivet Holes in long. seams yes Pitch of rivets yes Lap of plates or width of butt straps yes Thickness of straps yes
 Percentage strength of long. joint:—Plate yes Rivet yes Diameter of tube holes in drum 4 3/4" Pitch of tube holes 7"
 Percentage strength of drum shell in way of tubes 42.2 MVD Water Drum Heads or Ends:—Material Steel Thickness 3/4"
 Radius or how stayed Flat Size of manhole or handhole yes Headers or Sections:—Number 18 Pans per Boiler
 Material Steel Thickness 7/16" Tested by Hydraulic Pressure to 245 lbs Material of Stays yes
 Area at smallest part yes Area supported by each stay yes Working Pressure by Rules 324 lbs Tubes:—Diameter 4" 1/16"
 Thickness 4" 6 L.S.G. 13 9 L.S.G. 10 L.S.G. Number 54 @ 4" 558 @ 1 1/2" Steam Dome or Collector:—Description of Joint to Shell yes
 Percentage strength of Joint yes Diameter yes Thickness of shell plates yes Material yes
 Description of longitudinal joint yes Diameter of Rivet Holes yes Pitch of Rivets yes Working Pressure of shell by Rules yes
 Crown or End Plates:—Material yes Thickness yes How stayed yes

SUPERHEATER. Type yes Date of Approval of Plan yes Tested by Hydraulic Pressure to yes
 Date of Test yes Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler yes
 Diameter of Safety Valve yes Pressure to which each is adjusted yes Is easing gear fitted yes
 Is a drain cock or valve fitted at lowest point of superheater yes Number, diameter, and thickness of tubes yes
 Spare Gear. Tubes yes Gaskets or joints:—Manhole yes Handhole yes Handhole plates yes

The foregoing is a correct description,
Babcock & Wilcox, Ltd. Manufacturer.
 per David R. Macdonald

Dates of Survey } During progress of work in shops 1928 Oct 19, Oct 15-17, 25, Nov 14-19, Dec 3-10-19 Is the approved plan of boiler forwarded herewith yes
 while building } During erection on board vessel 1929 Jan 16, 24, 28, 29, 30, Feb 7, 14, 18, 28, Mar 6, 8, 11, 18, 20, 21, 26, Apr 2, 7, 9, 24, 29, May 7, June 4. Total No. of visits 35

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under survey, in accordance with the Rules and approved plans. The materials and workmanship are good. They have been properly secured on board, safety valves adjusted under steam, and found sound and tight.

3/5 Survey Fee Babcock & Wilcox £ 18 : 0 : 0 When applied for, 6 - AUG 1929
 3/5 Travelling Expenses (if any) £ 12 : 0 : 0 When received, 3. 7. 29
20-8-29 Edw. G. Murdoch
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 6 - AUG 1929
 Assigned See accompanying machinery report

