

REPORT ON WATER TUBE BOILERS.

No. 85977

Received at London Office

17 OCT 1956

20 MAY 1957

Date of writing Report 8/10/1956 When handed in at Local Office 15/10/1956 Port of GLASGOW
 No. in Survey held at RENFREW Date, First Survey 17.6.55 Last Survey 8.10.1956
 Reg. Book. "AYRSHIRE" (Number of Visits 59) Tons Gross Net
 on the "AYRSHIRE"
 Built at GREENOCK By whom built GREENOCK DOCKYARD CO. LTD. Yard No. 488 When built 1957
 Engines made at GREENOCK By whom made JOHN G. KINCAID & CO. LTD. Engine No. 804R When made
 Boilers made at RENFREW By whom made BARCOCK & WILCOX LTD. Boiler No. 6/461 When made 1956
 HS for Register Book Owners Port belonging to

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel COLVILLES LTD.
 Date of Approval of plan 8.6.55, 11.3.55, 27.10.54, 8.2.55, 20.8.56 No. and Description or Type of Boilers 2-HEADER TYPE WITH SIDE & REAR WALLS Pressure 500 LBS Tested by Hydraulic Pressure to 800 LBS Date of Test 24.8.56
 No. of Certificate 24484 PORT 24488 SMR Can each boiler be worked separately YES Total Heating Surface of Boilers 14044 sq ft Superheaters 2600 sq ft
 Half Economisers Is forced draught fitted YES Area of Fire Grate (coal) in each Boiler OIL FIRED
 No. and type of burners (oil) in each boiler 5-WALLEN HODGEN PRESSURE TYPE No. and description of safety valves on each boiler ONE DOUBLE SPRING LOADED I.H.L. 2 1/2 Area of each set of valves per boiler per rule 45 APPROVED Pressure to which they are adjusted 495 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 26'-6"
 Width and length 17'-2" x 22'-0" Steam Drums:—Number in each boiler ONE Inside diameter 3'-6"
 Thickness of plates 1 1/8" Range of tensile strength 28-32 TONS Are drum shell plates welded or flanged WELDED If fusion welded, state name of welding firm BARCOCK & WILCOX LTD, RENFREW Have all the requirements of the Rules for Class I vessels been complied with YES Description of riveting:—Circ. seams long. seams
 Diameter of rivet holes in long. seams Pitch of rivets Thickness of straps Percentage strength of long. joint:—Plate Rivet Diameter of tube holes in drum 4", 4 1/2" Pitch of tube holes VARIOUS
 Percentage strength of shell in way of tubes Steam Drum Heads or Ends:—Range of tensile strength 28-32 TONS
 Thickness of plates 1 1/4" Radius or how stayed 3'-0" Size of manhole or handhole 16" x 12" Water Drums:—Number in each boiler NIL Inside diameter Thickness of plates Range of tensile strength Are drum shell plates welded or flanged If fusion welded, state name of welding firm Have all the requirements of the Rules for Class I vessels been complied with Description of riveting:—Circ. seams long. seams
 Diameter of rivet holes in long. seams Pitch of rivets Thickness of straps Pitch of tube holes
 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:—Range of tensile strength
 Thickness of plates Radius or how stayed Size of manhole or handhole
Headers or Sections:—Number 48 Material FORGED STEEL Thickness 3/4", 1 1/8", 1 1/4" Tested by hydraulic pressure to 800 LBS
Tubes:—Diameter 4 1/2", 4", 3 1/2", 2", 1 1/2" Thickness 2, 3, 6, 10 LBS Number 1444 Steam Dome or Collector:—Description of joint to shell Inside diameter Thickness of shell plates Range of tensile strength Description of longitudinal joint If fusion welded, state name of welding firm Have all the requirements for the Rules for Class I vessels been complied with Diameter of rivet holes Pitch of rivets Thickness of straps Percentage strength of long. joint plate rivet
Crown or End Plates:—Range of tensile strength Thickness Radius or how stayed
SUPERHEATER:—Headers:—Number in each boiler 2 Inside diameter 6" x 6"
 Thickness 1" Material FORGED STEEL Range of tensile strength 28-32 TONS Are drum shell plates welded or flanged If fusion welded, state name of welding firm Have all the requirements of the Rules for Class I vessels been complied with Description of riveting:—Circ. seams long. seams
 Diameter of rivet holes in long. seams Pitch of rivets Thickness of straps Percentage strength of long. joint:—Plate Rivet Diameter of tube holes in drum Pitch of tube holes 1 1/4" Percentage strength of drum shell in way of tubes AS APPROVED Drum Heads or Ends:—Thickness Range of tensile strength
 Radius or how stayed Size of manhole or handhole 3 1/2" SQUARE Number, diameter, and thickness of tubes 222 - 1 1/4" x 10 LBS
 Tested by hydraulic pressure to 800 LBS Date of test PORT 25.4.56 STARR 22.5.56 Is a safety valve fitted to each section of the superheater which can be shut off from the boiler No. and description of safety valves 1-SINGLE SPRING LOADED I.H.L. 2 1/2 Area of each set of valves 4.9087 sq ft Pressure to which they are adjusted 475 LBS Is easing gear fitted YES

Spare Gear. Has the spare gear required by the Rules been supplied

The foregoing is a correct description,

Barcock & Wilcox Ltd

Manufacturer.

Dates of Survey 1955 June 17, 20 Aug 8-8, 18, 23, 24, 19, 15, 19, 21, 22, 29, 30, Oct 4, 11, 13, 20, 24, Nov 8, 16, 21, 23, 25, 30, Dec 1, 2, 9, 21, 27, 1956 Jan 14, 17, 26, Feb 6, 8, Mar 7, 20, 27, Apr 4, 6, 9, 13, 20, 25, 30, May 10, 11, 17, 22, 29, June 13, July 30, Aug 9, 17, 24, 26, 17, 26, 28, Oct 8. Is the approved plan of boiler forwarded herewith
 while building During erection on board vessel Total No. of visits 59

Is this boiler a duplicate of a previous case If so, state vessel's name and report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boilers have been constructed under Special Survey in accordance with the Society's Rules for Boilers & Fusion Welded Pressure Vessels Class I, and the approved plans. The materials have been tested by the Society's Surveyors and the workmanship is good.

WELDING FOR 28 4
 Survey Fee £ 141 When applied for 19
 Travelling Expenses (if any) £ When received 19

MONTHLY ACCOUNT

W. Haugh & J. McKinnon
 Engineer Surveyors to Lloyd's Register of Shipping.

Accumulation Test Waived in Accordance with (LONDON) SECRETARY'S LETTER OF 26TH NOVEMBER, 1956. H.K. Taylor

Date GLASGOW 16 OCT 1956
 Committee's Minute Deferred for completion

1220-462400-392400