

Rpt. 5c.  
APR 1946

# REPORT ON WATER TUBE BOILERS.

No. 18734.

Received at London Office 2 APR 1946

Date of writing Report 28<sup>th</sup> March 1946 When handed in at Local Office 30<sup>th</sup> March 1946 Port of WEST HARTLEPOOL  
 No. in Survey held at HARTLEPOOL Date, First Survey 11<sup>th</sup> Feb 1944 Last Survey 22<sup>nd</sup> March 1946  
 Reg. Bk. on the 31.5 " WAVE PREMIER " (Number of Visits 80) Tons } Gross  
 Net  
 Built at Hampson Hill on Sea 389 By whom built Jumess & B. B. & Co. Ltd. When built 1946  
 Engines made at Startlepool By whom made Richardsons Westgarth & Co. Ltd. When made 1946  
 Boilers made at Startlepool By whom made Richardsons Westgarth & Co. Ltd. No 2753 When made 1946  
 Nominal Horse Power \_\_\_\_\_ Owners The Admiralty Port belonging to London.

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

Date of Approval of plan 18-6-42 Number and Description or Type of Boilers 2 "D" Type Foster Wheeler Working Pressure 490 lbs Tested by Hydraulic Pressure to 785 lbs Date of Test 21-3-46  
 No. of Certificate H.660 Can each boiler be worked separately Yes Total Heating Surface of Boilers 6840 sq ft } 109 05  
 Is forced draught fitted Yes Area of fire grate (coal) in each Boiler Oil fired No. and description of safety valves on each boiler 1-2 "Bockburns Sm. H.L. Area of each set of valve 11.1 sq in" Pressure to which they are adjusted 57.5 lbs  
 No. and type of burners (oil) in each boiler 3 Wallsend Standard Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler No  
 Smallest distance between boilers or uptakes and bunkers or woodwork 2'-0" Height of boiler 15'-9" Width and Length 17'-5 1/2" x 11'-7 1/2"  
 Steam Drums:—Number in each boiler One Inside diameter 3'-6" Thickness of plates 1 3/8"  
 Range of Tensile Strength 28/32 tons Are drum shell plates welded or flanged Welded Description of riveting:—  
 Cir. seams \_\_\_\_\_ long. seams \_\_\_\_\_ Diameter of rivet holes in long. seams \_\_\_\_\_ Pitch of rivets \_\_\_\_\_  
 Lap of plate or width of butt straps \_\_\_\_\_ Thickness of straps \_\_\_\_\_ Percentage strength of long. joint:—Plate \_\_\_\_\_ Rivet 55.5  
 Diameter of tube holes in drum 2'-1 1/4" Pitch of tube holes 4 1/2" x 3 1/2" Percentage strength of shell in way of tubes 1 1/2" - 44.4 50 mean  
 Working pressure by rules \_\_\_\_\_ Steam Drum Heads or Ends:—Range of tensile strength 26/30 tons Thickness of plates 1 3/8"  
 Radius or how stayed 3'-6" Size of manhole or handhole 16 x 12" Working pressure by rules \_\_\_\_\_ Water Drums:—Number in each boiler One Inside Diameter 2'-9" Thickness of plates 1 3/8" Range of tensile strength 28/32 tons Are drum shell plates welded or flanged Welded 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 2 1/2" x 1 1/2"  
 Percentage strength of long. joint:—Plate \_\_\_\_\_ Rivet \_\_\_\_\_ Diameter of tube holes in drum 2'-1 1/4" Pitch of tube holes 4 1/2" x 3 1/2"  
 Percentage strength of drum shell in way of tubes 1 1/2" - 44.4 Working pressure by rules \_\_\_\_\_ Water Drum Heads or Ends:—Range of Tensile strength 26/30 tons Thickness of plates 1 3/8" Radius or how stayed 2'-9"  
 Size of manhole or handhole 16 x 12" Working pressure by rules \_\_\_\_\_ Headers or Sections:—Number 3  
 Material Steel Thickness 7/16" Tested by Hydraulic Pressure to 785 lbs Tubes:—Diameter 2" x 1 1/2"  
 Thickness 7/16" Number 384 + 1040 Steam Dome or Collector:—Description of Joint to Shell \_\_\_\_\_  
 Inside diameter \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Range of tensile strength \_\_\_\_\_  
 Description of longitudinal joint \_\_\_\_\_ Diameter of rivet holes \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plate or width of butt straps \_\_\_\_\_ Thickness of straps \_\_\_\_\_ Percentage strength of long. joint \_\_\_\_\_ Plate \_\_\_\_\_ Rivet \_\_\_\_\_  
 Working Pressure of shell by rules \_\_\_\_\_ Crown or End Plates:—Range of tensile strength \_\_\_\_\_ Working pressure by rules \_\_\_\_\_  
 Thickness \_\_\_\_\_ Radius or how stayed \_\_\_\_\_

**SUPERHEATER. Drums or Headers:**—Number in each boiler 2 Inside Diameter 6 1/4" x 6 1/4"  
 Thickness 1 1/8" Material Steel Range of tensile strength 28/32 tons Are drum shell plates welded or flanged Welded 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 \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Drum Heads or Ends:—Steel  
 Thickness 1 1/8" Range of tensile strength 28/32 tons Radius or how stayed \_\_\_\_\_ Size of manhole or handhole 2"  
 Working pressure by rules \_\_\_\_\_ Number, diameter, and thickness of tubes 300 @ 1 1/4" x 11/16" Tested by Hydraulic Pressure to 785 lbs  
 Date of Test 21-3-46 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 1-2 1/2" Bockburns Sm. H.L. Double Area of each set of valves 7.96 sq in  
 Pressure to which they are adjusted 490 lbs Is easing gear fitted Yes

Spare Gear. Has the spare gear required by the rules been supplied Yes  
 for RICHARDSONS, WESTGARTH & Co. LIMITED.  
 The foregoing is a correct description,  
W. E. Goodridge Manufacturer.

Dates of Survey } During progress of work in shops (1944) Feb 11, 12, 14, 18 (+ intermediate dates) March 19, 21, 22. Is the approved plan of boiler forwarded herewith \_\_\_\_\_  
 while building } During erection on board vessel \_\_\_\_\_ Total No. of visits 80

Is this boiler a duplicate of a previous case Yes. If so, state vessel's name and report No. H 3083 Rpt No. 18719.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) These boilers, with their superheaters, & economisers have been constructed under special survey, and in accordance with the approved plans and specification for a working pressure of 490 lbs  
The materials and workmanship have been found good.

Survey Fee ... £ See Rpt } When applied for, 10  
 Travelling Expenses (if any) £ to follow } When received, 10

Committee's Minute \_\_\_\_\_  
 Assigned See F.E. mch. rpt.

Arthur W. Osford  
 Engineer Surveyor to Lloyd's Register of Shipping.

