

Rpt. 5c.

REPORT ON WATER TUBE BOILERS.

No. 18734.

APR 1948

Received at London Office

2 APR 1946

Date of writing Report 28th March 1946 When handed in at Local Office 30th March 1946 Port of WEST HARTLEPOOL
 No. in Survey held at HARTLEPOOL Date, First Survey 11th Feb 1944 Last Survey 22nd March 1946
 Reg. Bk. 315 "WAVE PREMIER" (Number of Visits 80) Tons Gross 1660 Net 1405
 on the 389 By whom built Sumner & B. B. & S. When built 1946
 Engines made at Stanthope By whom made Richardsons, Westgarth & Co. Ltd. When made 1946
 Boilers made at Stanthope By whom made Richardsons, Westgarth & Co. Ltd. When made 1946
 Nominal Horse Power 2753 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 4060 Can each boiler be worked separately Yes Total Heating Surface of Boilers 6840 Superheaters 1660 Economisers 2405
 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" S.M.H.L. Area of each set of valve 11.10" Pressure to which they are adjusted 505 1/2 lb
 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 1 1/2" Pitch of rivets 2"
 Lap of plate or width of butt straps 2 1/4" Thickness of straps 2 1/4" Percentage strength of long. joint:—Plate 55.5 Rivet 55.5
 Diameter of tube holes in drum 2 1/4" Pitch of tube holes 4 1/2" x 3 1/2" Percentage strength of shell in way of tubes 1 1/2" Working pressure by rules 26/30 tons Thickness of plates 1 1/2"
 Working pressure by rules 26/30 tons Steam Drum Heads or Ends:—Range of tensile strength 26/30 tons Thickness of plates 1 1/2"
 Radius or how stayed 3'-6" Size of manhole or handhole 16" x 12" Working pressure by rules 26/30 tons Water Drums:—Number in each boiler One Inside Diameter 2'-9" Thickness of plates 1 1/2" 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 1 1/2" Pitch of rivets 2" Lap of plates or width of butt straps 2 1/4" Thickness of straps 2 1/4"
 Percentage strength of long. joint:—Plate 55.5 Rivet 55.5 Diameter of tube holes in drum 2 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" Working pressure by rules 26/30 tons Water Drum Heads or Ends:—Range of tensile strength 26/30 tons Thickness of plates 1 1/2"
 Tensile strength 26/30 tons Radius or how stayed 2'-9"
 Size of manhole or handhole 16" x 12" Working pressure by rules 26/30 tons Headers or Sections:—Number 3
 Material Steel Thickness 3/8" Tested by Hydraulic Pressure to 785 lbs Tubes:—Diameter 2" x 1 1/4"
 Thickness 7WG. 11WG. 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 —
 Thickness — Radius or how stayed — Working pressure by rules —
 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 1 1/2" Pitch of rivets 2" Lap of plates or width of butt straps 2 1/4" Thickness of straps 2 1/4"
 Percentage strength of long. joint:—Plate 55.5 Rivet 55.5 Diameter of tube holes in drum 2 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" Working pressure by rules 28/32 tons Drum Heads or Ends:—Seal
 Thickness 1 1/8" Range of tensile strength 28/32 tons Radius or how stayed 2" Size of manhole or handhole 2"
 Working pressure by rules 28/32 tons Number, diameter, and thickness of tubes 300 @ 1 1/4" x 11WG. 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 Yes
 No. and description of Safety Valves 1-2 1/4" Bockburns S.M.H.L. Double Area of each set of valves 7.96"
 Pressure to which they are adjusted 490 lb 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. Foxbridge. Manufacturer.

Dates of Survey } During progress of work in shops -- } 1944
 while building } During erection on board vessel -- } Feb 11, 12, 14, 18 (7 intermediate dates) March 19, 21, 22. Is the approved plan of boiler forwarded herewith Yes
 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^o 3083 Rpt. No. 18719.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers, with their superheaters, are economical and 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.

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