

Rpt. 5c.

REPORT ON WATER TUBE BOILERS.

No. 19321.

Received at London Office 1 FEB 1952

Date of writing Report 29-1-1952 When handed in at Local Office 29-1-1952 Port of West Hartlepool

No. in Survey held at West Hartlepool Date, First Survey 15th January, 1951, Last Survey 21st January, 1952.
 Reg. Bk. on the CALTEX CALCUTTA (Number of Visits 24) Tons { Gross 857 Net 4808
 Built at Sunderland By whom built Wm Doxford & Sons Ltd When built 1952
 Engines made at Sunderland By whom made Wm Doxford & Sons Ltd When made 1952
 Boilers made at West Hartlepool By whom made Richardson Westgarth & Co Ltd, D622 When made 1952
 Nominal Horse Power M.N. 288 each Owners Wiseas Tankship (UK) Ltd Port belonging to London

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

Date of Approval of plan DESIGN PRESS 250 lb Number and Description or Type of Boilers 2 - Foster Wheeler Water Tube Boilers Working Pressure 220 lb/sq in Tested by Hydraulic Pressure to 425 lb/sq in Date of Test 21-1-52
 No. of Certificate 4157 Can each boiler be worked separately Yes Total Heating Surface of Boilers 6920 sq ft including 160 sq ft superheat
 Is forced draught fitted Yes Area of fire grate (coal) in each Boiler 2 - Todds No. and description of safety valves on each boiler One - 2" Single Spring Bockburn High Lift

Area of each set of valves per boiler { per rule as fitted 3.14 sq ft Pressure to which they are adjusted Yes 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 or uptakes and bunkers or woodwork Yes Height of boiler 16' - 8 3/4"

Width and Length 10' - 4 1/16" x 11' - 6 3/4" Steam Drums:—Number in each boiler One Inside diameter 3' - 5 3/4"
 Thickness of plates 1 5/16" Range of Tensile Strength 28-32 Tons Are drum shell plates welded or flanged Welded If fusion welded, state name of welding firm Marshall Anderson & Co Motherwell Have all the requirements of the rules for Class I vessels been complied with Yes Description of riveting:—Cir. seams Yes long. seams Yes

Diameter of rivet holes in long. seams Yes Pitch of rivets Yes Thickness of straps Yes Percentage strength of long. joint:—Plate Yes Rivet Yes Diameter of tube holes in drum 2" x 1 1/8" Pitch of tube holes 3" x 1 3/4"
 Percentage strength of shell in way of tubes 3 3/4" = 33 1/2% 1 3/4" = 35.7% Steam Drum Heads or Ends:—Range of tensile strength 26-30 Tons

Thickness of plates 1 5/16" Radius or how stayed 3' - 5 3/4" inside Size of manhole or handhole 16 x 12" Water Drums:—Number in each boiler One Inside Diameter 2' - 5 1/2" 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 Marshall Anderson Motherwell Have all the requirements of the rules for Class I vessels been complied with Yes Description of riveting:—Cir. seams Yes long. seam Yes

Diameter of rivet holes in long. seams Yes Pitch of rivets Yes Thickness of straps Yes Percentage strength of long. joint:—Plate Yes Rivet Yes Diameter of tube holes in drum 2" x 1 1/8" Pitch of tube holes 3" x 1 3/4"
 Percentage strength of drum shell in way of tubes 3 3/4" = 33 1/2% 1 3/4" = 35.7% Water Drum Heads or Ends:—Range of Tensile strength 26-30 Tons

Thickness of plates 1 1/8" Radius or how stayed 2' - 5 1/2" inside Size of manhole or handhole 16" x 12"
 Headers or Sections:—Number 2 Material Mild Steel Thickness 1 5/16" Tested by Hydraulic Pressure to Yes
 Diameters:—Diameter 1 1/8" o.d. Thickness 8 W.G. 11 W.G. Number 803 per Boiler Steam Dome or Collector:—Description of

183 int to Shell Yes Inside diameter Yes Thickness of shell plates Yes Range of tensile Yes
 183 length Yes Description of longitudinal joint Yes If fusion welded, state name of welding Yes
 183 Have all the requirements of the rules for Class I vessels been complied with Yes Diameter of rivet holes Yes
 183 Pitch of rivets Yes Thickness of straps Yes Percentage strength of long. Joint Yes Plate Yes Rivet Yes

Down or End Plates:—Range of tensile strength Yes Thickness Yes Radius or how stayed Yes
 SUPERHEATER. Drums or Headers:—Number in each boiler One Inside Diameter 5 1/4" x 4 1/2" inside
 Thickness 3/4" Material Mild Steel Range of tensile strength 28-32 Tons Are drum shell plates welded or flanged Welded If fusion welded, state name of welding firm Foster Wheeler Ltd Have all the requirements of the rules for Class I vessels been complied with Yes Description of riveting:—Cir. seams Yes long. seams Yes

Diameter of rivet holes in long. seams Yes Pitch of rivets Yes Thickness of straps Yes Percentage strength of long. joint:—Plate Yes Rivet Yes Diameter of tube holes in drum 2" x 1 1/8" Pitch of tube holes 3 1/4" Percentage strength of drum shell in way of tubes 38.4% Drum Heads or Ends:—Two Thickness 1 3/8" Range of tensile strength 28-32 Tons
 Radius or how stayed Yes Size of manhole or handhole 2.030" x 10.000" Number, diameter, and thickness of tubes 12 - 2.0d x 7G thick
 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 No. and description of Safety Valves One 2" Double Spring Bockburn High Lift Area of each set of valves 6.3 sq ins Pressure to which they are adjusted Yes Is easing gear fitted Yes

Fire Gear. Has the spare gear required by the rules been supplied Yes
 The foregoing is a correct description, Richardson Westgarth & Co. Limited Manufacturer.

During progress of survey work in shops -- 1951, Jan. 15, Feb. 12-16, April 2, June 1, Oct. 11, 1952, Jan. 2.
 During erection on board vessel -- 3.9.14.18.21.
 Total No. of visits 24

Is this boiler a duplicate of a previous case No If so, state vessel's name and report No. No
 GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Boilers have been constructed under special survey in accordance with approved plans, Secretary's letters and the rules of the Society for a working pressure of 220 lb/sq in. The materials and workmanship are good. On completion they were tested by hydraulic pressure to 425 lb/sq in and found sound and tight.

Survey Fee ... £ 82 : 14 : 0 When applied for, 29-1-1952.
 Travelling Expenses (if any) £ : : When received, 19

Engineer Surveyor to Lloyd's Register of Shipping. H. A. Wilson.
 These boilers have been securely fitted on board the vessel & safety valves adjusted under steam at working pressure. W. Armstrong

Committee's Minute TUES. 9 DEC 1952
 Signed See F. E. ushy. rpt. Slid 35918
 004603-004611-0231