

# REPORT ON WATER TUBE BOILERS.

No. 58009

Received at London Office 10 FEB 1937

Date of writing Report 28/11/37 When handed in at Local Office 6.2.1937 Port of Glasgow  
 No. in Survey held at Renfrew Date, First Survey 28-8-36 Last Survey 21-1-1937  
 Reg. Bk. on the Boilers No 6/1314. (small type) Number of Visits 19 Gross Tons 723 Net Tons 1937  
 Master Built at Barrow By whom built Vickers Armstrong Ltd When built 1937  
 Engines made at Renfrew By whom made Babcock & Wilcox Ltd When made 1937  
 Boilers made at Renfrew By whom made Babcock & Wilcox Ltd When made 1937  
 Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

**WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY**—Manufacturers of Steel D. Colville Son & Lewis Steel Co  
 (Letter for Record \_\_\_\_\_) Date of Approval of plan 15/6/36 22/6/36 29/6/36 13/7/36 9/7/36  
 of Boilers 2 Babcock & Wilcox type Working Pressure 450 Tested by Hydraulic Pressure to 425 Date of Test \_\_\_\_\_  
 No. of Certificate \_\_\_\_\_ Can each boiler be worked separately \_\_\_\_\_ Total Heating Surface of Boilers 4140 sq ft  
 Is forced draught fitted \_\_\_\_\_ Area of fire grate (coal) in each Boiler \_\_\_\_\_ Total grate area of boilers in vessel including Main and Auxiliary \_\_\_\_\_  
 No. and type of burners (oil) in each boiler \_\_\_\_\_ No and description of safety valves on each boiler \_\_\_\_\_  
 Area of each valve \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_  
 Are they fitted with easing gear \_\_\_\_\_ In case of donkey boilers state whether steam from main boilers can enter the donkey boiler \_\_\_\_\_  
 Smallest distance between boilers or uptakes and bulkheads or woodwork \_\_\_\_\_ Height of Boiler \_\_\_\_\_ Width and Length \_\_\_\_\_  
 Steam Drums:—Number in each boiler Not made in Glasgow district Inside diameter \_\_\_\_\_ Material of plates \_\_\_\_\_ Thickness \_\_\_\_\_  
 Range of Tensile Strength \_\_\_\_\_ Are drum shell plates welded or flanged \_\_\_\_\_ 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 \_\_\_\_\_  
 Diameter of tube holes in drum \_\_\_\_\_ Pitch of tube holes \_\_\_\_\_ Percentage strength of shell in way of tubes \_\_\_\_\_  
 If Drum has a flat side state method of staying \_\_\_\_\_ Depth and thickness of girders at centre (if fitted) \_\_\_\_\_  
 Distance apart \_\_\_\_\_ Number and pitch of stays in each \_\_\_\_\_ Working pressure by rules \_\_\_\_\_  
 Thickness made from 1 7/16 Radius or how stayed 3'-0"  
 Size of Manhole or Handhole 15" x 11" Material Steel Water Drums:—Number in each boiler 1 Inside Diameter 6" x 6" square  
 Material of plates S. S. Steel Thickness 3/4" nominal Range of tensile strength 28/32 Tons Are drum shell plates welded or flanged \_\_\_\_\_  
 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 \_\_\_\_\_ Water Drum Heads or Ends:—Material \_\_\_\_\_ Thickness \_\_\_\_\_  
 Radius or how stayed \_\_\_\_\_ Size of manhole or handhole \_\_\_\_\_ Headers or Sections:—Number 120  
 Material S. S. Steel Thickness 7/16" nominal Tested by Hydraulic Pressure to 425 lb Material of Stays \_\_\_\_\_  
 Area at smallest part \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working Pressure by Rules 450 lb Tubes:—Diameter \_\_\_\_\_  
 Thickness \_\_\_\_\_ Number \_\_\_\_\_ Steam Dome or Collector:—Description of Joint to Shell \_\_\_\_\_  
 Percentage strength of Joint \_\_\_\_\_ Diameter \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_  
 Description of longitudinal joint \_\_\_\_\_ Diameter of Rivet Holes \_\_\_\_\_ Pitch of Rivets \_\_\_\_\_ Working Pressure of shell by Rules \_\_\_\_\_  
 Crown or End Plates:—Material \_\_\_\_\_ Thickness \_\_\_\_\_ How stayed \_\_\_\_\_

**SUPERHEATER.** Type Babcock & Wilcox Date of Approval of Plan \_\_\_\_\_ Tested by Hydraulic Pressure to 425 lb  
 Date of Test Intendeck Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler \_\_\_\_\_  
 Diameter of Safety Valve \_\_\_\_\_ Pressure to which each is adjusted \_\_\_\_\_ Is easing gear fitted \_\_\_\_\_  
 Is a drain cock or valve fitted at lowest point of superheater \_\_\_\_\_ Number, diameter, and thickness of tubes \_\_\_\_\_  
 Spare Gear. Tubes \_\_\_\_\_ Gaskets or joints:—Manhole \_\_\_\_\_ Handhole \_\_\_\_\_ Handhole plates \_\_\_\_\_

The foregoing is a correct description,  
Babcock & Wilcox, Ltd Manufacturer.

Dates of Survey } During progress of work in shops:—1936 Aug: 28 Sep: 11. 21. 22 Oct: 20. 27 Is the approved plan of boiler forwarded herewith Yes  
 while building } During erection on board vessel:—29 Nov: 4. 10. 11. 17 Dec: 7. 11. 18. 21. 23 Total No. of visits 19  
28. 29 (1937) Jan 21

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) These boiler parts have been built under special survey, to approved plans in accordance with the Society's Rules. Materials and workmanship are good. They have been despatched to Mr Vickers Armstrong Ltd, for completion and fitting in their No 723.

8/12/37 Survey Fee noted on large type Boiler Report. When applied for, \_\_\_\_\_ 19  
 Travelling Expenses (if any) £ \_\_\_\_\_ When received, \_\_\_\_\_ 19  
H Sutherland  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 9-FEB 1937  
 Assigned TRANSMIT TO LONDON

