

Rpt. 5c.

REPORT ON WATER TUBE BOILERS.

No. 41180

Received at London Office

TUE. 18 APR. 1922

Date of writing Report 1. 4. 1921 When handed in at Local Office 20. 6. 1921 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 16th August Last Survey 3rd December 1920

Reg. Bk. on the Three Babcock & Wilcox Water Tube Boilers for S.S. No. 17 Tons { Gross
Net.

Master Built at Bilbao By whom built Sociedad Espanola de Construcción Naval When built

Engines made at By whom made When made

Boilers made at Renfrew By whom made Babcock & Wilcox Ltd 1124 When made 1920

Registered Horse Power Owners Port belonging to

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Colville & Sons Ltd

(Letter for Record S) Date of Approval of plan 3/2/20 Number and Description or Type of Boilers 3 Babcock & Wilcox Water Tube Working Pressure 180 Tested by Hydraulic Pressure to Date of Test

No. of Certificate Can each boiler be worked separately 92.94 Total Heating Surface of Boilers 9636 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 bunkers or woodwork Height of Boiler Width and Length

Steam Drums:—Number in each boiler one Inside diameter 4'-0" Material of plates S Thickness 9/16 & 1/16

Range of Tensile Strength 28-32 Are drum shell plates welded or flanged no Description of riveting:—

Cir. seams double long. seams 2 riv. S.B.S. Diameter of rivet holes in long. seams 2 3/32 Pitch of Rivets 3.537

Lap of plates or width of butt straps 7 1/2 Thickness of straps 7/16 Percentage strength of long. joint:—Plate 74.4 Rivet 76.7

Diameter of tube holes in drum 3 3/32 Pitch of tube holes 7" x 6" Percentage strength of shell in way of tubes 82

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 ✓

Steam Drum Heads or Ends:—Material S Thickness 13/16 Radius or how stayed 3'-6"

Size of Manhole or Handhole in shell 11 x 15 **Water Drums:**—Number in each boiler one outside Diameter 7 1/2 sq.

Material of plates S Thickness 3/4 Range of tensile strength 26/30 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 3 15/16 Pitch of tube holes 3 1/4

Percentage strength of drum shell in way of tubes 43.4 **Water Drum Heads or Ends:**—Material S Thickness 3/4

Radius or how stayed ✓ Size of manhole or handhole ✓ **Headers or Sections:**—Number 22 in each

Material S Thickness 7/32 Tested by Hydraulic Pressure to 540 lbs Material of Stays ✓

Area at smallest part ✓ Area supported by each stay ✓ Working Pressure by Rules ✓ **Tubes:**—Diameter 3 1/8 & 1 3/16

Thickness 2 1/2 : 1 1/2 : 1 1/4 : 1 1/8 Number 66-3 15/16 **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 Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test 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,
(Signed) Babcock & Wilcox Ltd Manufacturer.

Dates of Survey { During progress of 1920 Aug. 16, Nov. 8, 11, 24, 29. Dec. 3. Is the approved plan of boiler forwarded herewith yes
while { work in shops - - -
building { During erection on board vessel - - -

Total No. of visits 6

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been shipped in sections to Bilbao. The workmanship & materials are of good quality. Headers, mud drums, & steam drums tested. The boilers built in accordance with approved plans. To be completed and tested after erection at Bilbao.

Survey Fee ... £ : : When applied for, 191

Travelling Expenses (if any) £ : : When received, 191

(Sgd) C. Martell.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 23 JAN. 1923

TUE. APR. 24 1923

Assigned

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