

# REPORT ON WATER TUBE BOILERS.

No. 61765

Received at London Office

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Date of writing Report 9<sup>th</sup> Nov 1939 When handed in at Local Office 18<sup>th</sup> Nov 1939 Port of Glasgow

No. in Survey held at Renfrew Date, First Survey 13. 6. 38 Last Survey 4<sup>th</sup> Nov 1939

Reg. Bk. on the Boilers intended for Greenock Dockyard No 437 Number of Visits 80 Tons 80 Gross Net

Master By whom built When built

Engines made at Greenock By whom made J. G. Kincaid & Co Ltd (E. No 400) When made

Boilers made at Renfrew By whom made Babcock & Wilcox Ltd 6/1344 When made

Registered Horse Power 986 Owners As only Port belonging to

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

Letter for Record W.T. Spt Date of Approval of plan 14 & 24/6/38 Number and Description or Type of Boilers 3-Babcock & Wilcox Type Working Pressure 250 lb Tested by Hydraulic Pressure to Date of Test

No. of Certificate Can each boiler be worked separately Total Heating Surface of Boilers 14,790 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 4- Retain flow wide range No and description of safety valves on each boiler One - 3" dia Double, Imp. High lift Area of each valve 7.06 sq in 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 41'-6" Width and Length 30'-0" x 38'-6"

Steam Drums:—Number in each boiler One Inside diameter 3'-6" Material of plates Steel Thickness 1 1/16"

Range of Tensile Strength 28/32 ton Are drum shell plates welded or flanged welded Description of riveting:—

Cir. seams Fusion Welding long. seams Fusion welding 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 4.047" Pitch of tube holes 7" Percentage strength of shell in way of tubes 42

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 250 lb Steam Drum Heads or Ends:—Material Steel Thickness 1 1/8" Radius or how stayed 3'-0" (outside)

Size of Manhole or Handhole 11" x 15" Water Drums:—Number in each boiler 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 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 19 each

Material Steel Thickness 1/2" & 7/16" Tested by Hydraulic Pressure to 425 lb Material of Stays NO PER BOILER

Area at smallest part Area supported by each stay Working Pressure by Rules 250 lb Tubes:—Diameter 4" 0/16" & 1 1/16" 0/16"

Thickness 5 L.S.G. & 8 1/4 L.S.G Number 54 @ 4" & 1 1/16" each MUDDRUM NO PER BOILER Description of Joint to Shell one

Percentage strength of Joint Solid drum Diameter 6" x 6" each Thickness of shell plates 3/4" Material Steel

Description of longitudinal joint Diameter of Rivet Holes Pitch of Rivets Working Pressure of shell

by Rules add 250 lb Crown or End Plates:—Material Thickness How stayed

UPERHEATER. Type Babcock & Wilcox Date of Approval of Plan 3/11/38 Tested by Hydraulic Pressure to 425 lb

Date of Test 21-9-39 & 11-9-39 Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler Yes

Diameter of Safety Valve 3" Single Imp. High lift Pressure to which each is adjusted Is easing gear fitted

Is a drain cock or valve fitted at lowest point of superheater Yes Number, diameter, and thickness of tubes 120 - 1 1/2" 0/16" x 9 L.S.G

Spare Gear. Tubes 8-4 1/2 x 3 1/2 x 11' 0" long Gaskets or joints:—Manhole 6 Handhole 402 Handhole plates 14

20/11/39 The foregoing is a correct description, W. Pollock Manufacturer.

Dates of Survey During progress of work in shops 1938 June: 13, 20 July: 4 Aug: 22 Sep: 7, 29 Is the approved plan of boiler forwarded herewith Yes

while building During erection on board vessel 1939 Jan: 16, 26, 31 Feb: 6, 13, 14, 20, 23, 27 Mar: 7, 13, 27 Total No. of visits 80

Apr: 4, 5, 11, 17, 24, 28 May: 2, 5, 8, 15, 22, 23, 25, 26, 29, 30 June: 1, 6, 7, 19, 26, 28, 30 July: 3, 6, 10 Aug: 8, 14, 21, 22, 28, 31

Sep: 4, 8, 12, 20, 21, 27 Oct: 3, 11, 13, 16, 17, 23, 24, 25, 31 Nov: 4

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed in accordance with the Society's rules and approved plans. The materials & workmanship are good. The drums, sections, superheaters and mountings have been tested under hydraulic pressure but each boiler as a unit has not been tested. The boilers have been despatched to Greenock for installation and hydraulic test in Messrs Greenock Dockyard & Co Ltd's Yard No 437.

Survey Fee ... £ 61 : 16 : - When applied for, 21 NOV 1939

Travelling Expenses (if any) £ : : When received, 21 Jan. 1940

Committee's Minute GLASGOW 21 NOV 1939

Assigned TRANSMIT TO LONDON

