

REPORT ON WATER TUBE BOILERS

No. 41788.

RED. MAR. 15 1922

Received at London Office

Date of writing Report 1st March 1922 When handed in at Local Office 11th March 1922 Port of Glasgow

No. in Survey held at Renfrew Date, First Survey 16. 9. 1921 Last Survey 14. 12. 1921

Reg. Bk. on the 3 - Babcock & Wilcox Boilers No 1176 Number of Visits 8 Tons 8 Gross 8 Net 8

Master Port Adelaide Built at Port Adelaide By whom built Messrs. Poole & Steel When built

Engines made at Renfrew By whom made Messrs. Babcock & Wilcox, Ltd. (No 1176) When made

Boilers made at Renfrew By whom made Messrs. Babcock & Wilcox, Ltd. (No 1176) When made

Registered Horse Power Owners Port belonging to

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Stewart & Lloyd

(Letter for Record (S)) Date of Approval of plan 12th May, 1921 Number and Description or Type of Boilers 3 Water-tube: Babcock & Wilcox Working Pressure 180 lbs./sq. in. Tested by Hydraulic Pressure to Date of Test

No. of Certificate Can each boiler be worked separately Total Heating Surface of Boilers 8289 sq. ft.

Is forced draught fitted Area of fire grate (coal) in each Boiler 84.5 sq. ft. 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 steel Thickness 17/32" + 1"

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

Cir. seams D.R. Lap Long. seams F.R. Lap Diameter of rivet holes in long. seams 27/32" Pitch of Rivets 3 3/4"

Lap of plate:—(a) width of butt straps 0' 5" 0' 7" Thickness of straps 7/16" Percentage strength of long. joint:—Plate 75.8 Rivet 75.5

Diameter of tube holes in drum 3 3/32" Pitch of tube holes 7" Percentage strength of shell in way of tubes 81.4

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 233 lbs./sq. in.

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

Size of Manhole or Handhole 15" x 11" in cylindrical shell Water Drums:—Number in each boiler One Inside Diameter 6" (square section)

Material of plates steel Thickness 3/4" Range of tensile strength 24/28 tons Are drum shell plates welded or flanged yes 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 6/64" Pitch of tube holes 7"

Percentage strength of drum shell in way of tubes 43.5 Water Drum Heads or Ends:—Material steel Thickness 3/4"

Radius or how stayed Size of manhole or handhole Headers or Sections:—Number 19 pairs per boiler

Material steel Thickness 17/32" Tested by Hydraulic Pressure to 540 lbs./sq. in. Material of Stays

Area at smallest part Area supported by each stay Working Pressure by Rules Tubes:—Diameter (1) 3 15/16" (2) 1 13/16"

Thickness (1) 5/16" L.S.R. (2) 9/10 L.S.R. Number (1) 157 (2) 590 Steam Dome or Collector:—Description of Joint to Shell None

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 None 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 36 Handhole 2000 Handhole plates 16

The foregoing is a correct description,

Babcock & Wilcox Limited, Manufacturer.

Dates of Survey 1921 Sep 16, Oct 16, Nov 4, 11, 18, 26, Dec 5, 14

During progress of work in shops

During erection on board vessel

Is the approved plan of boiler forwarded herewith yesTotal No. of visits 8

GENERAL REMARKS

(State quality of workmanship, opinions as to class, &c.)

These boilers have been partly built at this port under Special Survey: the materials & workmanship, so far as advanced, are good:—the headers & mud-drums have been tested to 540 lbs./sq. in.: the steam drum shell plates & butt straps were examined after rolling to shape and the drums ends examined on completion of shaping & machining—no rivet holes drilled. These parts are now being shipped to Messrs. Poole & Steel, Port Adelaide, South Australia, to be fitted on completion into one of their vessels.

Survey Fee £ 26 : 14/-

Travelling Expenses (if any)

When applied for, 14/3/1922

When received, 19

J. D. Boyle
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Signed

GLASGOW 14 MAR 1922

TRANSMIT TO LONDON

FRI. 3 AUG. 1923

Lloyd's Register
Foundation