

REPORT ON WATER TUBE BOILERS

No. 41788.

REC. 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 }
 Master Built at Port Adelaide By whom built Messrs. Poole + Steel When built

Engines made at _____ By whom made _____ 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 S. Colville + Sons.

(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 5" (b) 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 3/16"

Thickness (1) 5+6 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 Engineers Manufacturer.

Dates of Survey: During progress of (1921) Sep 16, Oct 16, Nov 4, 11, 18, 26, Dec 5, 14 Is the approved plan of boiler forwarded herewith yes.

while building: During erection on board vessel _____ Total 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/- When applied for, 14/3/1922

Travelling Expenses (if any) £ _____ When received, _____

Committee's Minute _____

Assigned _____

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

GLASGOW 14 MAR 1922

TRANSMIT TO LONDON

FRI. 3 AUG. 1923



Lloyd's Register Foundation