

## REPORT ON WATER TUBE BOILERS.

No. 80569

Received at London Office

- 8 JUL 1953

14 APR 1954

of writing Report 30.6.1953 When handed in at Local Office 30.6.1953 Port of Glasgow

Survey held at Renfrew Date, First Survey 17.3.52 Last Survey 15.6.1953

Book. (Number of Visits 59) Tons Gross Net

on the SAMSON

at Aberdeen By whom built Alex. Hall & Co. Ltd. Yard No. 741 When built

Lines made at By whom made Engine No. When made

Boilers made at Renfrew By whom made Babcock & Wilcox Ltd. Boiler No. 10/641 When made 1953

Original Horse Power Owners British Admiralty Port belonging to

WATER TUBE BOILERS MAIN, AUXILIARY, OR DONKEY. Manufacturers of Steel Colvilles Ltd.

of Approval of plan 24-6-52 etc. No. and Description or Type No. 14.5.53

Boilers 2 Integral Furnace type Working Pressure 270 lb. Tested by Hydraulic Pressure to 455 lbs Date of Test 2.20.4.53

of Certificate 23881 & 23863 Can each boiler be worked separately Total Heating Surface of Boilers 6470 sq. ft. not checked

forced draught fitted Area of Fire Grate (coal) in each boiler

and type of burners (oil) in each boiler No. and description of safety valves on

boiler Area of each set of valves per boiler per rule as fitted Pressure to which they

adjusted Are they fitted with easing gear In case of donkey boilers state whether steam from main boilers can enter

donkey boiler Smallest distance between boilers or uptakes and bunkers or woodwork Height of boiler 16'-4"

width and length W 14'-6" L 16'-4" Steam Drums: Number in each boiler one Inside diameter 3'-5.13/16" ✓

thickness of plates Tube 1.7/16" Wrapper 9/16" Range of tensile strength 28-32 tons Are drum shell plates welded

flanged welded ✓ If fusion welded, state name of welding firm Babcock & Wilcox Ltd. Have all the requirements of the Rules

or Class I vessels been complied with yes Description of riveting: Circ. seams long. seams

diameter of rivet holes in long. seams Pitch of rivets Thickness of straps Percentage strength of

long. joint: Plate Rivet Diameter of tube holes in drum 2", 1 1/2", 1 1/8" Pitch of tube holes 3 1/2", 2 1/2", 1 1/8" ✓

percentage strength of shell in way of tubes 29.8 Steam Drum Heads or Ends: Range of tensile strength 28/32 tons ✓

thickness of plates 7/8" Radius or how stayed 3'0" Size of manhole or handhole 16" x 12" Water Drums: Number

each boiler one Inside diameter 2'-0.9/16" Thickness of plates 1" & 9/16" Range of tensile strength 28/32 tons Are drum shell plates

welded or flanged welded ✓ If fusion welded, state name of welding firm Babcock & Wilcox Ltd. Have all the requirements of the Rules

or Class I vessels been complied with yes Description of riveting: Circ. seams long. seams

diameter of rivet holes in long. seams Pitch of rivets Thickness of straps

percentage strength of long. joint: Plate Rivet Diameter of tube holes in drum 2", 1 1/2", 1 1/8" Pitch of tube holes 3 1/2", 2 1/2", 1 1/8" ✓

percentage strength of drum shell in way of tubes 29.8 Water Drum Heads or Ends: Range of tensile strength 28/32 tons ✓

Thickness of plates 3/4" Radius or how stayed 2'-0" Size of manhole or handhole 16" x 12" ✓

Side Wall Leaders or Sections: Number One Material S.D. Steel Thickness 5 1/2" x 5 1/2" x 3/4" Tested by hydraulic pressure to 455 lbs. ✓

Tubes: Diameter 4", 2", 1 1/2", 1 1/8" Thickness 5, 8, 11, 12 W.G. Number 12, 86, 144, 901 Steam Dome or Collector: Description of

point to shell Inside diameter Thickness of shell plates Range of tensile

strength Description of longitudinal joint If fusion welded, state name of welding

firm Have all the requirements for the Rules for Class I vessels been complied with Diameter of rivet holes

Pitch of rivets Thickness of straps Percentage strength of long. joint plate rivet

Crown or End Plates: Range of tensile strength Thickness Radius or how stayed

SUPERHEATER, Drums or Headers: Number in each boiler None Inside diameter

Thickness Material Range of tensile strength Are drum shell plates welded

or flanged If fusion welded, state name of welding firm Have all the requirements of the Rules

or Class I vessels been complied with Description of riveting: Circ. seams long. seams

Diameter of rivet holes in long. seams Pitch of rivets 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 Drum Heads or Ends: Thickness Range of tensile strength

Radius or how stayed Size of manhole or handhole Number, diameter, and thickness of tubes

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 No. and description of safety valves Area of each set

of valves Pressure to which they are adjusted Is easing gear fitted

Spare Gear. Has the spare gear required by the Rules been supplied Yes

The foregoing is a correct description,

Babcock &amp; Wilcox Ltd

Manufacturer.

Dates During progress of work in shops - 1952 Mar. 17, Apr. 17, May 15, 24, June 13, 16, 30, Jul. 22, 24, 28. Is the approved plan of boiler forwarded herewith Yes

of Survey while building During erection on board vessel - Aug. 1, 4, 12, 25, Sep. 2, 5, 11, 16, 22, 26, Oct. 30, Nov. 14, 18, 24, 26, 28. Total No. of visits 59

During erection on board vessel - Dec. 5, 11, 24, 26, 29, (1953) Jan. 7, 21, 22, 23, 27, Feb. 4, 6, 19, 23, 25, Mar. 4, 10, 11, 13, 20, 30, Apr. 1, 13, 14, 20, 22, 24, May 1, 4, 8, 11, 14, June 5, 9, 15.

Is this boiler a duplicate of a previous case. No If so, state vessel's name and report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. These boilers have been built under special survey in accordance with the Rules and approved plans, and the materials and workmanship are good. They have been sent to the Shipbuilders for installation in the vessel.

Survey Fee ... £ 95 : - : - When applied for 19

Travelling Expenses (if any) £ : : When received 19

GLASGOW

7 JUL 1953

Date

Committee's Minute

Deferred for completion

Engineer Surveyor to Lloyd's Register of Shipping.

010697-010704-0117