

REPORT ON WATER TUBE BOILERS.

No. 47740

Received at London Office 28 MAR 1928

Date of writing Report 21st March 1928. When handed in at Local Office 23/3/1928 Port of Glasgow.

No. in Reg. Bk. *Survey held at Renfrew* Date, First Survey 22. 4. 27 Last Survey 17. 3. 1928
 on the *Boilers No 6/214. for M.V. VICTORITE* Number of Visits 20 Tons Gross 11409 Net 6711
 Master Built at *Glasgow* By whom built *A. Stephen & Sons Ltd.* When built 1928. 3
 Engines made at *Kiel* By whom made *F. Krupp, A.G. Curran in N.* When made 1925.
 Boilers made at *Renfrew* By whom made *Babcock & Wilcox Ltd.* 6/217 When made 1924.
 Registered Horse Power 998 Owner *Imperial Oil Co. Ltd.* Port belonging to *Glasgow*

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

(Letter for Record S.) Date of Approval of plan 10/3/27, Number and Description or Type of Boilers 2-Babcock & Wilcox Watertube Working Pressure 250 lbs Tested by Hydraulic Pressure to 425 lbs Date of Test 11.11.27
 No. of Certificate 17683 Can each boiler be worked separately. *Yes* Total Heating Surface of Boilers 5270 sq ft
 Is forced draught fitted *Yes* Area of fire grate (coal) in each Boiler Oil Total grate area of boilers in vessel including Main and Auxiliary No. and type of burners (oil) in each boiler 3, *Chym. O.F. C.* No. and description of safety valves on each boiler 1-*1 1/2" Improved High Lift Safety Valve* Area of each valve 3.976 sq in Pressure to which they are adjusted 250 lbs
 Are they fitted with easing gear. *Yes* In case of donkey boilers state whether steam from main boilers can enter the donkey boiler *Yes*
 Smallest distance between boilers *18"* Height of Boiler 18'-6" Width and Length 12'-9" x 3'-6"
 Steam Drums:—Number in each boiler One Inside diameter 3'-6" Material of plates steel Thickness 1 1/16" x 9/16"
 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 *D.R. P.B.S.* Diameter of rivet holes in long. seams 59/64" Pitch of Rivets 3.48"
 Lap of plate or width of butt straps 9 1/8" x 9/16" Thickness of straps 9/16" Percentage strength of long. joint:—Plate 73.5% Rivet 104.9%
 Diameter of tube holes in drum 4 3/4" Pitch of tube holes 4" 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
 Steam Drum Heads or Ends:—Material Steel Thickness 5/16" Radius or how stayed 3'-0"
 Size of Manhole or Handhole Material of plates steel Thickness 3/4" Range of tensile strength 24-28 tons Are drum shell plates welded or flanged *Cap 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 4 3/6" Pitch of tube holes 4" x 4"
 Percentage strength of drum shell in way of tubes 42% Headers or Sections:—Number 18 pairs per boiler
 Radius or how stayed 3 flat. Size of manhole or handhole Material steel Thickness 7/16" Tested by Hydraulic Pressure to 450 lbs Material of Stays
 Area at smallest part Area supported by each stay Working Pressure by Rules 324 lbs Tubes:—Diameter 4" x 1 3/16"
 Thickness $t = \frac{1}{4} \sqrt{\frac{P D}{S}}$ Number 550 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, Babcock & Wilcox, Ltd. Manufacturer.

Dates of Survey During progress of work in shops 1927 Apr 22 May 3 Jun 8-16-30 July 6-11-13-21 Is the approved plan of boiler forwarded herewith
 while building During erection on board vessel Aug 3-9-10-17-22 Sep 7-16-28 Oct 17-19 (1928) Total No. of visits 20
 mar 17

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. Materials and workmanship good.

These boilers have now been satisfactorily fitted on board the above vessel, examined under hydrostatic test and their safety valves adjusted as detailed above.

Survey Fee ... £ 30 : 1 : 0 When applied for 22 MAR 1928
 Travelling Expenses (if any) £ : : : When received, 101

J. Nicholas M. Lane
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 27 MAR 1928

Assigned See accompanying mach^y report.