

## REPORT ON WATER TUBE BOILERS.

No. 48017

30 MAY 1928

Date of writing Report 24. 7. 1928

When handed in at Local Office 26. 5. 1928

Received at London Office

Port of Glasgow

No. in Survey held at Renfrew

Reg. Bk. on the 6/12/18.

Date, First Survey 22. 4. 27 Last Survey 18. 5. 1928

Number of Visits 18

Gross 11404  
Net 6708

Master - Built at Glasgow

By whom built A. Stephen &amp; Son Ltd. When built 1928. 5

Engines made at Glasgow

By whom made A. Stephen &amp; Son Ltd.

When made 1928

Boilers made at Renfrew

By whom made Babcock &amp; Wilcox Ltd

When made 1924

Registered Horse Power

Owners Imperial Oil Co Ltd.

Port belonging to Glasgow

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

(Letter for Record S) Date of Approval of plan 10/3/27

of Boilers 2. Babcock &amp; Wilcox Watertube Working Pressure 250 lbs Tested by Hydraulic Pressure to 425 lbs Date of Test 17. 1. 28

No. of Certificate 17750 Can each boiler be worked separately yes Total Heating Surface of Boilers 5240 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. Clyde Oil Fuel Co. and description of safety valves on

each boiler 1-pr. 3/4 dia. Improved High Lift safety valves Area of each valve 3. 9760 ft 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

Smallest distance between boilers or openings and burners or woodwork 18" Height of Boiler 18'-6" Width and Length 12-9 x 13-6"

Steam Drums: - Number in each boiler One Inside diameter 3'-6" Material of plates Steel Thickness 1 1/16" &amp; 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. DBS Diameter of rivet holes in long. seams 5 9/16" Pitch of Rivets 3. 48"

Lap of plates or width of butt straps 9 7/8" &amp; 9 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 3/64" Pitch of tube holes 4" Percentage strength of shell in way of tubes 42%

If Drum has a flat side state method of staying Distance apart Number and pitch of stays in each Working pressure

(if fitted) Steam Drum Heads or Ends: - Material Steel Thickness 1 5/16" Radius or how stayed 3'-0"

Size of Manhole or Handhole MUD Water Drums: - Number in each boiler One Inside Diameter 6" x 6"

Material of plates Steel Thickness 3/4" Range of tensile strength 24-28 tons Are drum shell plates welded

or flanged lap 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 3/64" Pitch of tube holes 4" &amp; 4 1/2"

Percentage strength of drum shell in way of tubes 42.9% Water Drum Heads or Ends: - Material Steel Thickness 3/4"

Radius or how stayed flat Size of manhole or handhole Tested by Hydraulic Pressure to 450 lbs Material of Stays

Material Steel Thickness 7/16" Headers or Sections: - Number 18 pairs per boiler

Area at smallest part Area supported by each stay Working Pressure by Rules 324 lbs Tubes: - Diameter 4" x 1 3/8"

Thickness 1/2" &amp; 1 1/16" = 849.6 sq. in. 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.  
J. R. Paton Manufacturer.

|          |                    |  |   |     |
|----------|--------------------|--|---|-----|
| Dates    | During progress of | 1927 Apr 22 May 3 Jun 8 16 30 July 6 13 21 | Is the approved plan of boiler forwarded herewith | yes |
| Survey   | work in shops      |  |   |     |
| while    | During erection on | Aug 3 8 17 22 Sep 1 5 28 Oct 17 19 (1928)  | Total No. of visits                               | 18  |
| building | board vessel       |  |   |     |

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under Special Survey in accordance with the Rules & approved plans. Materials and workmanship good.

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

Survey Fee ... £ 30 : 1 : 0

When applied for, 25 MAY 1928

Travelling Expenses (if any) £ : :

When received, 11. 6. 1928

J. R. Paton  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 29 MAY 1928

Signed See accompanying Mach. Report.

Lloyd's Register  
Foundation

W298-0047