

## REPORT ON WATER TUBE BOILERS.

No. 40416

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Writing Report 2.10.1920 When handed in at Local Office 4.10.1920 Port of Glasgow  
 in Survey held at Glasgow Date, First Survey 14.7.1919 Last Survey 23.9.1920  
 Bk. S.S. "Salawati" Number of Visits Tons { Gross Net  
 on the Built at Glasgow By whom built Lithgows Ltd (No 738) When built 1920  
 nes made at Glasgow By whom made W Rowan & Co Ltd (No 734) When made 1920  
 rs made at Glasgow By whom made Howdens (No 734) When made 1920  
 stered Horse Power Owners Port belonging to

## WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Lukens Steel Co Coateville PA. USA

ter for Record S Date of Approval of plan 10.9.19 Number and Description or Type  
 Boilers 4 Howdens Patent (3 elements) Working Pressure 180 lb Tested by Hydraulic Pressure to 320 lb Date of Test 17.8.20

of Certificate 15435 Can each boiler be worked separately. Yes Total Heating Surface of Boilers 10560 ft<sup>2</sup>

forced draught fitted. Yes Area of fire grate (coal) in each Boiler 45 ft<sup>2</sup> Total grate area of boilers in vessel including

in and Auxiliary 180 ft<sup>2</sup> No. and type of burners (oil) in each boiler None No. and description of safety valves on

boiler 2 Spring loaded Area of each valve 8.29 ft<sup>2</sup> Pressure to which they are adjusted 185 lb.

they fitted with easing gear. Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler. Yes

allest distance between boilers or uptakes and bunkers or woodwork. 23" Height of Boiler 15.94 ft Width and Length over all 12.10 ft x 13.5 ft

am Drums:—Number in each boiler 3 Inside diameter 3'-0" x 21 1/2" Material of plates Steel Thickness 1 1/8" Description of riveting:—

ange of Tensile Strength 26-30 tons Are drum shell plates welded or flanged. Flanged

seams Single Lap long. seams. D R Lap Diameter of rivet holes in long. seams 7/8" Pitch of Rivets 2.56"

p of plate or width of butt straps 4 3/8" Thickness of straps — Percentage strength of long. joint:—Plate 65.8 Rivet 79.86

iameter of tube holes in drum 2 3/32" Pitch of tube holes 3 1/8" x 5 1/2" Percentage strength of shell in way of tubes —

Drum has a flat side state method of staying Thick tube plates with girders at end. Depth and thickness of girders at centre

fitted. 6 3/8" x 1 1/8" (double) Distance apart 6 7/8" Number and pitch of stays in each four 6 7/8" Working pressure

rules 200 lb Steam Drum Heads or Ends:—Material Steel Thickness 3/4" Radius or how stayed 21" Radius

ze of Manhole or Handhole 16 x 12 (in wrapper) Water Drums:—Number in each boiler 3 Inside diameter 3'-0" x 21 1/2"

aterial of plates Steel Thickness 1 1/8" Range of tensile strength 26-30 tons Are drum shell plates welded

flanged. Yes. Tube plates are flanged Description of riveting:—Cir. seams Single Lap long. seams. D R Lap Diameter of Rivet Holes in

ng. seams 7/8" Pitch of rivets 2.65 Lap of plates or width of butt straps 4 3/8" Thickness of straps —

ercentage strength of long. joint:—Plate 67 Rivet 68.58 Diameter of tube holes in drum 2 3/32" Pitch of tube holes 3 1/8" x 5 1/2"

ercentage strength of drum shell in way of tubes — Water Drum Heads or Ends:—Material Steel Thickness 7/8" + 3/4"

adius or how stayed Manhole (12" Rad) Size of manhole or handhole 16" x 12" Headers or Sections:—Number —

aterial — Thickness — Tested by Hydraulic Pressure to — Material of Stays —

Area at smallest part — Area supported by each stay — Working Pressure by Rules — Tubes:—Diameter 2"

Thickness 6910 W.G. Number 717 Per Boiler Steam Dome or Collector:—Description of Joint to Shell Stand Pipe riveted Pad

Percentage strength of Joint 67.279.8 Diameter 2'-6" Thickness of shell plates 7/8" Material Steel

Description of longitudinal joint D R Lap Diameter of Rivet Holes 13/16" Pitch of Rivets 2.48" Working Pressure of shell

by Rules 226 lb Crown or End Plates:—Material Steel Thickness 13/16" How stayed 2'-6" Radius

UPERHEATER. Type "Howdens" Date of Approval of Plan 22.12.19 Tested by Hydraulic Pressure to 540 lb

Date of Test 30.4.20 Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler. Yes

Diameter of Safety Valve 2" Pressure to which each is adjusted 205 lb Is easing gear fitted. No

Is a drain cock or valve fitted at lowest point of superheater. Yes Number, diameter, and thickness of tubes 16 tubes 1 1/2" O.D. x 8 W.G.

Spare Gear. Tubes None Gaskets or joints:—Manhole 24 Handhole — Handhole plates —

The foregoing is a correct description,

David Rowan &amp; Co Ltd Manufacturer.

Dates } During progress of }  
 of Survey } work in shops - - }  
 while } During erection on }  
 building } board vessel - - }

See machinery report.

Is the approved plan of boiler forwarded herewith. Yes

Total No. of visits —

## GENERAL REMARKS (State quality of workmanship, opinions as to class, &amp;c.)

These Boilers & Superheater have been built under Special Survey Materials and workmanship are good. They have been well fitted to the Vessel.

Survey Fee ... Charges on Machinery Report.

Travelling Expenses (if any) £ : : When received, 191

Eas & Arthur Stewart Report.  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW. 15 OCT 1920

Assigned See accompanying Mach. Report.