

# REPORT ON BOILERS.

No. 15717  
WFIL 16 FEB 1910

Received at London Office

Date of writing Report 19 10/2/ 1910 When handed in at Local Office 10/2/ 1910 Port of Greenock  
 No. in Survey held at Greenock Date, First Survey 19<sup>th</sup> April 1908 Last Survey 7<sup>th</sup> Febry 1910  
 Reg. Book. " (Number of Visits 76) } Gross 6504  
on the SCREW STEAMER VALDURA. } Net 3495

Master A. G. McDougall. Built at Port Glasgow By whom built Russell & Co When built 1910  
 Engines made at Greenock By whom made Rankin & Blackmore when made 1910  
 Boilers made at Greenock By whom made Rankin & Blackmore when made 1910  
 Registered Horse Power \_\_\_\_\_ Owners The Valdura S.S. Co Ltd Port belonging to Glasgow  
 (John Harrison & Co Managers)

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Glasgow Iron & Steel Co Ltd

(Letter for record R.) Total Heating Surface of Boilers 1092 sq. ft. Is forced draft fitted No. No. and Description of

Boilers one Cylind. & 4 tubes: S. End. Working Pressure 100 lbs Tested by hydraulic pressure to 200 lbs Date of test 4/12/09

No. of Certificate 952. Can each boiler be worked separately ✓ Area of fire grate in each boiler 32 sq. ft. No. and Description of

safety valves to each boiler 2 direct spring loaded, Area of each valve 5.94 sq. in. Pressure to which they are adjusted 105 lbs.

Are they fitted with easing gear Yes. In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No.

Smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 11'0" Length 10'0"

Material of shell plates Steel. Thickness 1 1/2" Range of tensile strength 28632 tons Are the shell plates welded or flanged No.

Descrip. of riveting: cir. seams Lap Single long. seams OR Straps Diameter of rivet holes in long. seams 13/16" Pitch of rivets 4 1/16"

Lap of plates or width of butt straps 8 3/4" Per centages of strength of longitudinal joint 83.5 Working pressure of shell by

rules 103 lbs Size of manhole in shell 16" x 12" Size of compensating ring 29 1/2" x 25" x 2 1/2" No. and Description of Furnaces in each

boiler 2: plain Material Steel. Outside diameter 34 1/8" Length of plain part 6'6" Thickness of plates 1 1/2"

Description of longitudinal joint Weld. No. of strengthening rings None. Working pressure of furnace by the rules 102 lbs Combustion chamber

plates: Material Steel. Thickness: Sides 1 1/2" Back 9/16" Top 1 1/2" Bottom 3/4" Pitch of stays to ditto: Sides 8 1/2" x 10 1/8" Back 10" x 10"

Top 12 1/4" x 8 1/2" If stays are fitted with nuts or riveted heads Nuts. Working pressure by rules 100 lbs Material of stays Iron. Diameter at

smallest part 1 3/8". Area supported by each stay 86 sq. in. Working pressure by rules 103 lbs End plates in steam space: Material Steel. Thickness 1 1/2"

Pitch of stays 19 x 20 How are stays secured By nuts. Working pressure by rules 109 lbs Material of stays Steel. Diameter at smallest part 2 3/8"

Area supported by each stay 380 sq. in. Working pressure by rules 114 lbs Material of Front plates at bottom Steel. Thickness 5/8" Material of

Lower back plate Steel. Thickness 9/16" Greatest pitch of stays 10" Working pressure of plate by rules 109 lbs Diameter of tubes 5 1/2"

Pitch of tubes 4 5/8" Material of tube plates Steel. Thickness: Front 5/8" Back 3/32" Mean pitch of stays 9 1/4" Pitch across wide

water spaces 13 1/2" Working pressures by rules 150 lbs 101 lbs Girders to Chamber tops: Material Steel. Depth and thickness of

girder at centre 7 1/4" x 1 1/2" Length as per rule 28 3/4" Distance apart 12 1/4" Number and pitch of Stays in each 2: 8 1/2"

Working pressure by rules 113 lbs: Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked

separately \_\_\_\_\_ Diameter \_\_\_\_\_ Length \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet

holes \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Diameter of flue \_\_\_\_\_ Material of flue plates \_\_\_\_\_ Thickness \_\_\_\_\_

If stiffened with rings \_\_\_\_\_ Distance between rings \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates: Thickness \_\_\_\_\_ How stayed \_\_\_\_\_

Working pressure of end plates \_\_\_\_\_ Area of safety valves to superheater \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_

The foregoing is a correct description,  
Rankin & Blackmore Manufacturer.

Dates of Survey } During progress of } Is the approved plan of boiler forwarded here? ✓  
 while building } work in shops - - }  
 } During erection on }  
 } board vessel - - - }  
See accompanying report. Total No. of visits 76

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

Survey Fee ... £ : : } When applied for, ..... 19.....  
 Travelling Expenses (if any) £ : : } When received, ..... 19.....

Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW 15 FEB. 1910

Assigned See accompanying mach. report.

