

## REPORT ON BOILERS.

No. 17238.

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Date of writing Report 31<sup>st</sup> Dec 1917 When handed in at Local Office 3 Jan 1917 Port of Greenock  
 No. in Survey held at Greenock Date, First Survey 23<sup>rd</sup> August, 1916, Last Survey 28<sup>th</sup> December, 1917.  
 Reg. Book. on the Steel Steamer "Mahsoud" (Number of Visits 123.) Tons { Gross  
 Net  
 Master Built at St Helens By whom built Kincaid & Co When built 191  
 Engines made at Greenock By whom made John S Kincaid & Co When made 191  
 Boilers made at Greenock By whom made John S Kincaid & Co When made 191  
 Registered Horse Power Owners J. & J. Brocklebank, Ltd. Port belonging to Liverpool

**MULTITUBULAR BOILERS** MAIN, AUXILIARY OR DONKEY. Manufacturers of Steel St Helens S. S. Co. S. S. Co.  
 (Letter for record 2) Total Heating Surface of Boilers 2559 sq ft Is forced draft fitted Yes No. and Description of  
 Boilers One Single Ended Working Pressure 200 lb Tested by hydraulic pressure to 400 lb Date of test 7/11/17  
 No. of Certificate 1314 Can each boiler be worked separately Yes Area of fire grate in each boiler 59 sq ft No. and Description of  
 safety valves to each boiler Two Spring Area of each valve 4.91 sq in Pressure to which they are adjusted 205 lb  
 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 24 in Mean dia. of boilers 15' 6" Length 12' 0"  
 Material of shell plates Steel Thickness 1 1/4" Range of tensile strength 28-32 Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams No long. seams Double Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 9 1/4"  
 Lap of plates or width of butt straps 20 1/2" Per centages of strength of longitudinal joint 86.16 Working pressure of shell by  
 rules 201 lb Size of manhole in shell 16" x 12" Size of compensating ring 14" No. and Description of Furnaces in each  
 boiler 3 Horizontal Material Steel Outside diameter 45 1/4" Length of plain part 10' 0" Thickness of plates 2 1/2"  
 Description of longitudinal joint Welded No. of strengthening rings One Working pressure of furnace by the rules 222 lb Combustion chamber  
 plates: Material Steel Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 27/32" Pitch of stays to ditto: Sides 9' 9" Back 9' 4" x 8' 10"  
 Top 9' 9" If stays are fitted with nuts or riveted heads No Working pressure by rules 202 lb Material of stays Steel Area at  
 smallest part 236 sq in Area supported by each stay 81 sq in Working pressure by rules 219 lb End plates in steam space: Material Steel Thickness 1 1/2"  
 Pitch of stays 21 1/4" x 21 1/2" How are stays secured By nuts Working pressure by rules 200 lb Material of stays Steel Area at smallest part 9.82 sq in  
 Area supported by each stay 467 sq in Working pressure by rules 218 lb Material of Front plates at bottom Steel Thickness 1 1/2" Material of  
 Lower back plate Steel Thickness 1 1/2" Greatest pitch of stays 14' Working pressure of plate by rules 210 lb Diameter of tubes 3"  
 Pitch of tubes 4 1/2" x 4 3/16" Material of tube plates Steel Thickness: Front 1 1/16" Back 27/32" Mean pitch of stays 8' 4" x 12' 4" Pitch across wide  
 water spaces 14' Working pressures by rules 207 lb Girders to Chamber tops: Material Steel Depth and thickness of  
 girder at centre 11 1/2" x 15" Length as per rule 40.46' Distance apart 9' Number and pitch of Stays in each Three 9'  
 Working pressure by rules 200 lb Steam dome: description of joint to shell \_\_\_\_\_ % of strength of joint \_\_\_\_\_  
 Diameter \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet holes \_\_\_\_\_  
 Pitch of rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Crown plates \_\_\_\_\_ 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 \_\_\_\_\_

The foregoing is a correct description,  
 FOR JOHN G. KINCAID & COY., LIMITED.  
 Robert Green. Manufacturer.

Dates of Survey { During progress of } (1<sup>st</sup> Entry Machinery.) Is the approved plan of boiler forwarded herewith Yes  
 while { work in shops - - }  
 building { During erection on }  
 board vessel - - - } Total No. of visits \_\_\_\_\_

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

This main boiler has been constructed under special survey  
in accordance with the approved Test Point. Tested by hydraulic  
pressure and is efficiently fitted in place.

Survey Fee ... £ \_\_\_\_\_ When applied for, 191 \_\_\_\_\_  
 Travelling Expenses (if any) £ \_\_\_\_\_ When received, 191 \_\_\_\_\_

Committee's Minute GLASGOW 15 JAN 1918

Assigned See accompanying machinery report.

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
 Foundation