

# REPORT ON BOILERS.

Received at London Office 14 DEC 1927

Date of writing Report 23/9/27 When handed in at Local Office 9-12-1927 Port of Greenock  
 No. in Survey held at Greenock Date, First Survey 13th September 1927 Last Survey 6th Dec 1927  
 Reg. Book on the TWIN S S "MIMIE" (Number of Visits 7) Gross 464 Tons Net 430  
 Master P. C. Longan Built at P. C. Longan By whom built Ferguson B. No. 286 When built 1927  
 Engines made at P. C. Longan By whom made Ferguson B. No. 286 When made 1927  
 Boilers made at Greenock By whom made John Kincaid & Co. No. 149 When made 1927  
 Registered Horse Power \_\_\_\_\_ Owners L. M. & S. R. G. Ltd Port belonging to London

**MULTITUBULAR BOILERS—MAIN,** \_\_\_\_\_—Manufacturers of Steel Scottish S.S. & Co. Ltd  
 (Letter for record S) Total Heating Surface of Boiler 1322 sq ft Is forced draft fitted No No. and Description of Boiler one single ended Working Pressure 120 Tested by hydraulic pressure to 230 Date of test 26.9.27  
 No. of Certificate 148 Can each boiler be worked separately Yes Area of fire grate in each boiler 41.25 sq ft No. and Description of safety valves to each boiler 2 Direct Spring Area of each valve 3" Pressure to which they are adjusted 125 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 or uptakes and bunkers or woodwork 20" Int. Mean dia. of boilers 12-6" Length 10-0"  
 Material of shell plates S Thickness 3/4" Range of tensile strength 28-32 Are the shell plates welded or flanged Yes  
 Descrip. of riveting: cir. seams DR long. seams TR. OBS Diameter of rivet holes in long. seams 15/16" Pitch of rivets 5"  
 Width of butt straps 9 7/8" Per centages of strength of longitudinal joint: rivets 86% plate 81.25% Working pressure of shell by rules 121 Size of manhole in shell 16" x 20" Size of compensating ring 2.84 x 2.44 x 3/16" No. and Description of Furnaces in each boiler 2 Bourgaoka Material S Outside diameter 4.114" Length of plain part top 13 1/2" bottom 13 1/2" Thickness of plates crown 13 1/2" bottom 13 1/2"  
 Description of longitudinal joint weld No. of strengthening rings 1 Working pressure of furnace by the rules 123 Combustion chamber plates: Material S Thickness: Sides 9/32" Back 9/16" Top 9/32" Bottom 9/32" Pitch of stays to ditto: Sides 9 1/2" x 10" Back 9 3/4" x 9 3/8" Top 9 1/2" x 9 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 141 Material of stays S Area at smallest part 1.46 sq ft Area supported by each stay 96 sq in Working pressure by rules 124 End plates in steam space: Material S Thickness 27/32" Pitch of stays 18 1/4" How are stays secured DNW Working pressure by rules 126 Material of stays S Area at smallest part 367 sq in Area supported by each stay 306 sq in Working pressure by rules 128 Material of Front plates at bottom S Thickness 13/16" Material of Lower back plate S Thickness 2 1/32" DP Greatest pitch of stays 13.45 Working pressure of plate by rules 130 Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" x 4 1/16" Material of tube plates S Thickness: Front 13/16" Back 2 1/32" Mean pitch of stays 11.3 Pitch across wide water spaces 14 1/2" Working pressures by rules 131 Girders to Chamber tops: Material S Depth and thickness of girder at centre 4 3/4" x 5 1/8" (2) Length as per rule 2.621 Distance apart 9 1/2" Number and pitch of Stays in each 2 at 9 1/2" Working pressure by rules 122 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 \_\_\_\_\_

**UPERHEATER.** 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 and on behalf of JOHN G. KINCAID & COY., LIMITED Manufacturer.  
Robert Green

Dates of Survey: During progress of work in shops (1927) Sept 13, 16, 20, 23, 26 Dec 6. Is the approved plan of boiler forwarded herewith Director Yes  
 while building: During erection on board vessel. Total No. of visits Seven

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey in accordance with the approved plan & the workmanship & material are of good quality. It is now securely fitted on board. This report accompanies that of the Machinery.

Survey Fee ... £ 8.16 When applied for, 7th Dec 1927  
 Travelling Expenses (if any) £ \_\_\_\_\_ When received, 6.1.1928

Committee's Minute GLASGOW 13 DEC 1927

Assigned See accompanying mach report

W. London-Mitchell  
 Engineer Surveyor to Lloyd's Register of Shipping.

