

# REPORT ON BOILERS.

No. 40065

WED JUN 23 1920

Received at London Office

5a.

Writing Report 101 When handed in at Local Office 19.6.1920 Port of Glasgow  
 Date, First Survey 19.6.1920 Last Survey 10 June 1920  
 Survey held at Glasgow (Number of Visits) Gross 9751  
 on the Single ended Boilers SS "MANGALORE" Net 6205  
 Built at Glasgow By whom built E. Connell & Co When built 1920  
 Made at Manchester By whom made Metropolitan Vickers When made 1919  
 Made at Glasgow By whom made D. Rowan & Co Ltd When made 1920  
 Registered Horse Power Owners J. J. Brucklebank Ltd Port belonging to Liverpool

**LONGITUDINAL BOILERS MAIN, AUXILIARY OR DONKEY** - Manufacturers of Steel Shell Co. of Scotland Ltd  
 Total Heating Surface of Boilers 6680 sq ft Is forced draft fitted No  
 Working Pressure 200 Tested by hydraulic pressure to 350 Date of test 28.1.20  
 Certificate 15066 Can each boiler be worked separately Yes Area of fire grate in each boiler 70 sq ft No. and Description of  
 valves to each boiler 2 Spring loaded Area of each valve 7.07 sq ft Pressure to which they are adjusted 205 lb  
 They fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler  
 Least distance between boilers or uptakes and bunkers or woodwork 1-6" Mean dia. of boilers 17-6" Length 12'0"  
 Material of shell plates Steel Thickness 1 7/16" Range of tensile strength 30-34 tons Are the shell plates welded or flanged Yes  
 Pitch of riveting: cir. seams 6d lap long. seams + RPBS Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 10 1/4"  
 of plates or width of butt straps 2 1/4" Per centages of strength of longitudinal joint rivets 88.2 Working pressure of shell by  
 200 Size of manhole in shell 19 1/2" x 15 1/2" Size of compensating ring 3'0 1/2" x 2'8 1/2" plate 85.4  
 4 corrugated Material Steel Outside diameter 3'10 1/4" Length of plain part top - Thickness of plates crown 5" bottom -  
 Description of longitudinal joint welded No. of strengthening rings Working pressure of furnace by the rules 217 Combustion chamber  
 Material Steel Thickness: Sides 23/32" Back 21/32" Top 23/32" Bottom 7/8" Pitch of stays to ditto: Sides 9 3/4" Back 9 1/2"  
 If stays are fitted with nuts or riveted heads Int. Working pressure by rules 200 Material of stays Iron Area at  
 least part 2'07" Area supported by each stay 89" Working pressure by rules 202 End plates in steam space: Material Steel Thickness 1 1/2"  
 of stays 18 1/2" x 18" How are stays secured do Working pressure by rules 200 Material of stays Steel Area at smallest part 7'0"  
 supported by each stay 341 Working pressure by rules 210 Material of Front plates at bottom Steel Thickness 7/8" Material of  
 front back plate Steel Thickness 3/32" Greatest pitch of stays 13 3/8" Working pressure of plate by rules 201 Diameter of tubes 3"  
 of tubes 4 1/4" x 4 1/8" Material of tube plates Steel Thickness: Front 1" Back 13/16" Mean pitch of stays 10 1/2" Pitch across wide  
 of spaces 13 7/8" Working pressures by rules 210 Girders to Chamber tops: Material Steel Depth and thickness of  
 at centre 11 1/2" x 7 1/8" (2) Length as per rule 40 1/2" Distance apart 9 3/4" Number and pitch of Stays in each 3-9 1/8"  
 Working pressure by rules 210 Steam dome: description of joint to shell None % of strength of joint  
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
 of rivets Working pressure of shell by rules Crown plates Thickness How stayed

**SUPERHEATER.** Type None Date of Approval of Plan Tested by Hydraulic Pressure to  
 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,  
 David Rowan & Co Ltd Manufacturer.

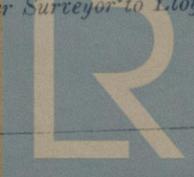
Is the approved plan of boiler forwarded herewith Yes  
 Total No. of visits  
 During progress of work in shops - - - See accompanying Machinery Report  
 While on board vessel - - -

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.)  
 The Boilers have been built under Special Survey, materials and workmanship are good, the Boilers have been satisfactorily fitted to the vessel

Survey Fee ... £ ... When applied for, 191  
 Travelling Expenses (if any) £ ... When received, 191  
 J. Easton, Thos. Murray  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 22 JUN 1920  
 Signed See attached machinery report

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Lloyd's Register of Shipping Foundation