

# REPORT ON BOILERS.

No. 6895.

SAT. 21 JAN 1911

Received at London Office

Writing Report 11<sup>th</sup> Jan 1911 When handed in at Local Office 11<sup>th</sup> Jan 1911 Port of Belfast  
 in Survey held at Belfast Date, First Survey April 1<sup>st</sup> 1910. Last Survey 11<sup>th</sup> Jan 1911  
 Book. (Number of Visits 79) Tons } Gross 4026.43  
 Net 1801.36  
 on the T. S. S. "Arankola"  
 by C. J. Swanson. Built at Belfast By whom built Workman Clark & Co Ltd When built 1911  
 keels made at Belfast By whom made Workman Clark & Co Ltd (No 298) when made 1911  
 plates made at Do By whom made Do (No 298) when made 1911  
 Indicated Horse Power Owners British India Steam Nav. Co Port belonging to Glasgow

**WATER TUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel Wm Beardmore & Steel Coy Glasgow  
 for record 8 Total Heating Surface of Boilers 11,192 sq ft Is forced draft fitted Yes No. and Description of  
 Boilers 4 single ended Working Pressure 215 lbs Tested by hydraulic pressure to 430 lbs Date of test 27.10.10  
 Certificate 439 Can each boiler be worked separately Yes Area of fire grate in each boiler 69.6 sq ft No. and Description of  
 valves to each boiler Double Acting loaded Area of each valve 9.62 sq in Pressure to which they are adjusted 330 lbs  
 they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes  
 least distance between boilers or uptakes and bunkers or woodwork 13 1/2" Mean dia. of boilers 15'-6" Length 11'-9"  
 Material of shell plates Steel Thickness 1 5/8" Range of tensile strength 29 1/4 to 33 tons Are the shell plates welded or flanged No  
 Pitch of riveting: cir. seams T. & D. Riv long. seams T. R. D. B. S. Diameter of rivet holes in long. seams 1 5/8" Pitch of rivets 10 1/2"  
 Width of butt straps 23 1/4" Per centages of strength of longitudinal joint rivets 90 Working pressure of shell by  
 plate 84.5  
250 lbs Size of manhole in shell 17" x 13" Size of compensating ring Wm Mills No. and Description of Furnaces in each  
 boiler 4 Morrison Material Steel Outside diameter 42 1/4" Length of plain part top 141" Thickness of plates crown }  
 bottom } 64"  
 Description of longitudinal joint weld No. of strengthening rings 1 Working pressure of furnace by the rules 245 Combustion chamber 5'-9 1/8" x 7'-4"  
 Material Steel Thickness: Sides 5/8" Back 3/4" Top 5/8" Bottom 13/16" Pitch of stays to ditto: Sides 8" x 7 1/4" Back 8" x 7 1/4"  
8 1/4" x 7" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 217 Material of stays Steel Diameter at  
 top 3"  
 least part 1.76 Area supported by each stay 67.9 Working pressure by rules 273 End plates in steam space: Material Steel Thickness 1 1/8"  
 Area 6.06 sq ft  
 of stays 19 1/2" x 15 1/2" How are stays secured O.N. nuts Working pressure by rules 215 Material of stays Steel Diameter at smallest part 7.85"  
 supported by each stay 302.25 Working pressure by rules 229 Material of Front plates at bottom Steel Thickness 1" Material of  
 rear back plate Steel Thickness 55-59" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 217 Diameter of tubes 2 1/2"  
 of tubes 3 3/4" x 3 5/8" Material of tube plates Steel Thickness: Front 1 1/4" Back 13/16" Mean pitch of stays 7 3/8" Pitch across wide  
 spaces 13 1/2" Working pressures by rules 218 lbs Girders to Chamber tops: Material Steel Depth and thickness of  
 at centre 9" x 2 @ 3/4" Length as per rule 30 3/4" Distance apart 8 1/4" Number and pitch of Stays in each 3 @ 7"  
 Working pressure by rules 218 Superheater or Steam chest: how connected to boiler Yes Can the superheater be shut off and the boiler worked  
 separately Yes Diameter Yes Length Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet  
 Pitch of rivets Yes Working pressure of shell by rules Yes Diameter of flue Yes Material of flue plates Yes Thickness Yes  
 stiffened with rings Yes Distance between rings Yes Working pressure by rules Yes End plates: Thickness Yes How stayed Yes  
 Working pressure of end plates Yes Area of safety valves to superheater Yes Are they fitted with easing gear Yes

The foregoing is a correct description,  
 FOR WORKMAN, CLARK & CO., LIMITED Manufacturer.

W. H. Bell

Is the approved plan of boiler forwarded herewith Yes

Total No. of visits See Rpt 4.

During progress of survey work in shops - -  
 During erection on board vessel - - -

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

Please see Rpt 4

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

A. J. Thomas

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

TUE. 24 JAN 1911

Committee's Minute  
 signed



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