

# REPORT ON BOILERS.

No. 6636

Received at London Office

MIN. 12 JUL 1909

Date of writing Report 9<sup>th</sup> July 1909 When handed in at Local Office Belfast Port of Belfast  
 No. in Survey held at Belfast Date, First Survey 1<sup>st</sup> Sept 1908 Last Survey 8<sup>th</sup> July 1909  
 Reg. Book. A.P. Karoola (Number of Visits 79) Gross 7391  
 on the A.P. Karoola Tons Net 4324  
 Master Belfast Built at Belfast By whom built Harland & Wolff L. When built 1909  
 Engines made at Belfast By whom made \_\_\_\_\_ when made \_\_\_\_\_  
 Boilers made at \_\_\_\_\_ By whom made \_\_\_\_\_ when made \_\_\_\_\_  
 Registered Horse Power v Owners M<sup>rs</sup> Murgit & M<sup>rs</sup> Ceehym May Port belonging to Mellbourne

**MULTITUBULAR BOILERS** MAIN, ~~AUXILIARY OR DONKEY~~ Manufacturers of Steel R. Colville & Sons  
 (Letter for record S) Total Heating Surface of Boilers 584.4 sq ft Is forced draft fitted Yes No. and Description of Boilers 2- Single End Cylindrical Working Pressure 2 1/2 lbs Tested by hydraulic pressure 4 3/4 lbs Date of test 10-2-09  
 No. of Certificate 416 Can each boiler be worked separately Yes Area of fire grate in each boiler 65 1/2 sq ft No. and Description of safety valves to each boiler 2 - Direct Spring Area of each valve 8.29 sq Pressure to which they are adjusted 21 1/2 lbs  
 Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler v  
 Smallest distance between boilers or uptakes and bunkers or woodwork About 6 ft Mean dia. of boilers 15'-9" Length 11'-6"  
 Material of shell plates Steel Thickness 1 1/8" Range of tensile strength 29-33 tons Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams Lap Riveting seams Auto Rivets Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 10"  
 Lap of plates on width of butt straps 2 1/2" Per centages of strength of longitudinal joint rivets 98.7 Working pressure of shell by rules 250 lbs Size of manhole in shell 17 x 13" Size of compensating ring Mc Nails No. and Description of Furnaces in each boiler 3 - Right angle Material Steel Outside diameter 49 1/4" Length of plain part top 6" Thickness of plates crown 3 1/2" bottom 3 1/2"  
 Description of longitudinal joint Weld No. of strengthening rings v Working pressure of furnace by the rules 240 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 3/8" Top 5/8" Bottom 3/8" Pitch of stays to ditto: Sides 8 1/2 x 7 1/2" Back 8 1/2 x 7 1/2"  
 Top 8 1/2 x 7 1/2" If stays are fitted with nuts or riveted heads Nuts inside Working pressure by rules 225 lbs Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 65 1/2 sq Working pressure by rule 241 lbs And plates in steam space: Material Steel Thickness 1 1/2"  
 Pitch of stays 8 1/2 x 15 1/2" How are stays secured Nuts inside Working pressure by rules 215 lbs Material of stay Steel Diameter at smallest part 2 1/2"  
 Area supported by stay 29 1/2 sq Working pressure by rules 252 lbs Material of Front plates at bottom Steel Thickness 7/8" Material of Lower back plate Steel Thickness 5/8" Greatest pitch of stays 12 1/2" Working pressure of plate by rule 264 lbs Diameter of tubes 2 1/2"  
 Pitch of tubes 3 1/2 x 10 1/2" Material of tube plates Steel Thickness: Front 5/8" Back 1 1/8" Mean pitch of stays 7 1/2 x 7 1/2" Pitch across wide water spaces 13 1/4" Working pressures by rule 348 lbs Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 10 x (7/8 x 2) Length as per rule 35 1/4" Distance apart 8 1/2" Number and pitch of Stays in each 3-7 1/2"  
 Working pressure by rules 217 lbs Superheater or Steam chest; how connected to boiler \_\_\_\_\_ 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,  
R. Colville & Sons Manufacturer.  
 Is the approved plan of boiler forwarded herewith Yes  
 Total No. of visits \_\_\_\_\_

Dates of Survey: During progress of work in shops - - - } See other sheet  
 while building }  
 During erection on board vessel - - - }

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

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

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

Committee's Minute TUES. 13 JUL 1909

Assigned \_\_\_\_\_



MS51-0015

*Submarine Rumps*

*Engine Room, General, 9 x 6 1/2 x 10 - 2 Simplex*  
*1st Spectator 10 1/2 x 7 x 10*  
*Wrench 4 x 5 x 10*  
*Ballast 10 x 10 x 10*  
*Sanitary 6 x 6 x 6*  
*2. Wires 11 1/2 x 15 1/2 x 24*  
*Main Centrifugal 4*  
*Aux. 6 1/2*  
*Launch Water 4 1/2 x 3 x 6*  
*Flat 5 x 5 x 6*  
*Crozier 4 1/2 x 2 1/2 x 4*

GENERAL REMARKS

