

# REPORT ON BOILERS.

No. 28078.

Received at London Office THU. NOV. 19. 1914

Date of writing Report 4<sup>th</sup> Nov 1914 When handed in at Local Office 14. 11 1914 Port of Hull

No. in Survey held at Hull Date, First Survey 28-9-14 Last Survey 11-11-14 191

Reg. Book. 634 on the new main boiler for S.S. Hercules (11124) (Number of Visits 20) } Gross 261  
Tons } Net 103

Master \_\_\_\_\_ Built at Beverley By whom built Cook, Wilton & Gemmell When built 1903-10

Engines made at Hull By whom made C. D. Holmes & Co. L<sup>td</sup> When made 1903-10

Boilers made at Hull By whom made C. D. Holmes & Co. L<sup>td</sup> When made 1914-10

Registered Horse Power 70 Owners J. A. Robertson & Co Port belonging to Fleetwood

**MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel Stuarts & Lloyds

Letter for record S ) Total Heating Surface of Boilers 1240<sup>sq</sup> Is forced draft fitted no No. and Description of Boilers one single ended Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 30-10-14

No. of Certificate 3033 Can each boiler be worked separately  Area of fire grate in each boiler 45<sup>sq</sup> No. and Description of safety valves to each boiler two spring loaded Area of each valve 4.90<sup>sq</sup> Pressure to which they are adjusted 205 lbs.

Are they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork 6" Mean dia. of boilers 156 7/16" Length 10'-3"

Material of shell plates steel Thickness 1 5/32" Range of tensile strength 29-33 tons Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams double long. seams J. R. & B. J. Diameter of rivet holes in long. seams 1 5/32" Pitch of rivets 7 3/4"

Top of plates or width of butt straps 18" Per centages of strength of longitudinal joint rivets 87.3 plate 85.2 Working pressure of shell by rules 204 Size of manhole in shell 12" x 16" Size of compensating ring 7" x 1 5/32" No. and Description of Furnaces in each boiler three plain Material steel Outside diameter 37 17/32" Length of plain part top 76 1/2" Thickness of plates crown 3 49/64" bottom 76" bottom 3 49/64"

Description of longitudinal joint welded No. of strengthening rings  Working pressure of furnace by the rules 204 Combustion chamber plates: Material steel Thickness: Sides 23/32" Back 3/4" Top 1 1/16" Bottom 23/32" Pitch of stays to ditto: Sides 10" x 8 3/4" Back 9 3/4" x 9 1/2" Top 10" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 202 Material of stays steel Area at smallest part 2.07<sup>sq</sup> Area supported by each stay 92.6<sup>sq</sup> Working pressure by rules 201 End plates in steam space: Material steel Thickness 1 5/32" Pitch of stays 17 1/2" x 17 1/2" How are stays secured D. T. & W. Working pressure by rules 206 Material of stays steel Area at smallest part 6.33<sup>sq</sup> Area supported by each stay 306<sup>sq</sup> Working pressure by rules 215 Material of Front plates at bottom steel Thickness 29/32" Material of Lower back plate steel Thickness 15/16" Greatest pitch of stays 14 1/2" x 8 3/4" Working pressure of plate by rules 214 Diameter of tubes 3 1/2" Pitch of tubes 5 1/4" x 5" Material of tube plates S Thickness: Front 29/32 Back 7/8" Mean pitch of stays 10 1/4" Pitch across wide water spaces 14" Working pressures by rules 261 lbs. Girders to Chamber tops: Material steel Depth and thickness of girder at centre 10" x 1.75" Length as per rule 34 5/8" Distance apart 10" Number and pitch of Stays in each three, 8"

Working pressure by rules 202 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,  
T. Arthur Holmes Manufacturer.

Dates of Survey } During progress of } 1914: - Sep 28 Oct 1. 6. 16 20. 23. 26. 28. 30. Is the approved plan of boiler forwarded herewith yes  
work in shops - - }  
while } During erection on } Oct 17. 19. 22 Nov 5. 6. 7. 9. 10. 11. 13. 14 Total No. of visits 20  
building } board vessel - - }

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This boiler has been constructed under special survey in accordance with the approved plan & the rules of this society, the materials & workmanship are good, on completion it was tested by hyd pressure to 400 lbs & found sound & good. The boiler has been properly fitted & secured on board, the vessel's safety valves adjusted under steam. In our opinion the vessel is eligible for the record + NB 11. 14.

Survey Fee ... .. £ 4 : 3 : - } When applied for, 18-11-1914  
Travelling Expenses (if any) £ : : } When received, 30-11-1914

Frank A. Sturgeon & W. H. Roberts  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

FRI. NOV. 20. 1914

Committee's Minute

Assigned



Lloyd's Register Foundation

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