

REPORT ON BOILERS.

No. 63005

MON. SEP. 23. 1912

Date of writing Report *5th Sept 1912* When handed in at Local Office *5th Sept 1912* Port of *Newcastle on Tyne*  
Safet. No. in Survey held at *S Shields* Date, First Survey *8th Mar. 1912* Last Survey *12th Sept 1912*  
Reg. Book. *652* on the *S S Thyras Menier* (Number of Visits) Gross *1457* Tons Net *794*  
Master Built at *Blyth* By whom built *Blyth S B Cato* When built *1912*  
Engines made at *S Shields* By whom made *G J Grey* When made *1912*  
Boilers made at *S Shields* By whom made *J. Eltringham & Co* When made *1912*  
Registered Horse Power *Donald S S Cato* Port belonging to *Bristol*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *J Spencer & Son Ltd*  
(Letter for record *S*) Total Heating Surface of Boilers *2450* sq ft Is forced draft fitted  
Boilers *No, Single Ended* Working Pressure *180* lbs Tested by hydraulic pressure to *360* lbs Date of test *13/8/12*  
No. of Certificate *8361* Can each boiler be worked separately ☒ Area of fire grate in each boiler  
Safety valves to each boiler Area of each valve Pressure to which they are adjusted  
Are they fitted with easing gear 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 *Inside* Mean dia. of boilers *11-10 1/16* Length *10-0*  
Material of shell plates *Steel* Thickness *3 1/32* Range of tensile strength *29/30 tons* Are the shell plates welded or flanged *No*  
Descrip. of riveting: cir. seams *2 R Lap* long. seams *S R Butt* Diameter of rivet holes in long. seams *1* Pitch of rivets *6 7/8*  
Top of plates or width of butt straps *14 3/4* Per centages of strength of longitudinal joint rivets *87.5* Working pressure of shell by rules *184* lbs Size of manhole in shell *16" x 12"* Size of compensating ring *30 x 26 3/32* No. and Description of Furnaces in each boiler *No, Deighton* Material *Steel* Outside diameter *43 1/2* Length of plain part *10* Thickness of plates crown *1 7/32* bottom *1 7/32*  
Description of longitudinal joint *Welded* No. of strengthening rings ☒ Working pressure of furnace by the rules *188* Combustion chamber plates: Material *Steel* Thickness: Sides *2 1/32* Back *1 1/16* Top *2 1/32* Bottom *1 3/16* Pitch of stays to ditto: Sides *9 x 9* Back *9 1/2 x 9 1/2*  
Top *9 1/2 x 8 1/2* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *183* Material of stays *Steel* Diameter at smallest part *5 3/8* Area supported by each stay *111* Working pressure by rules *186* End plates in steam space: Material *Steel* Thickness *1 1/32*  
Pitch of stays *7 x 15 1/4* How are stays secured *S Nuts* Working pressure by rules *187* Material of stays *Steel* Diameter at smallest part *4 5/8*  
Area supported by each stay *260* Working pressure by rules *183* Material of Front plates at bottom *Steel* Thickness *1 1/32* Material of Lower back plate *Steel* Thickness *2 7/32* Greatest pitch of stays *14 1/2 x 9 1/4* Working pressure of plate by rules *190* Diameter of tubes *3 1/4*  
Pitch of tubes *4 1/2* Material of tube plates *Steel* Thickness: Front *1 1/32* Back *2 7/32* Mean pitch of stays *11 1/4* Pitch across wide water spaces *14 1/4* Working pressures by rules *187* lbs Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *9 1/2 x 1 7/8* Length as per rule *30 1/2* Distance apart *8 1/2* Number and pitch of Stays in each *No, 9 1/2*  
Working pressure by rules *185* lbs Superheater or Steam chest: how connected to boiler *None* 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,  
FOR JOB. T. ELIOT & CO. J. Donovan Manufacturer.

Dates of Survey During progress of work in shops - - - 1912 Mar. 8 Jun. 3. 6. 10. 13. 19. Jul. 9. 22. 30. Is the approved plan of boiler forwarded herewith *Yes*  
while building During erection on board vessel - - - Aug. 2. 13. Sep. 2 Total No. of visits *12*  
See Machinery Report

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been built under special survey the materials & workmanship are of good quality and on completion were satisfactorily tested by hydraulic pressure to 360 lbs per sq in & were found tight & sound at that pressure. They have been fitted on board by G. J. Grey Esq of S Shields*

Survey Fee ... *Charge to Engineer* When applied for, ... 191...  
Travelling Expenses (if any) £ : : When received, ... 191...  
*George Murdoch*  
Engineer & Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute TUE. SEP. 24. 1912  
Assigned  
Lloyd's Register Foundation