

## REPORT ON BOILERS.

No. 24592.

U.S. 13 SEP 1910

Received at London Office

Date of writing Report Sept. 1<sup>st</sup> 1910 When handed in at Local Office Sept. 5<sup>th</sup> 1910. Port of Sunderland  
 No. in Survey held at Sunderland Date, First Survey August 22 1910 Last Survey Sept. 2<sup>nd</sup> 1910  
 Reg. Book. S. S. Moorlands (Number of Visits 1) Gross 3600  
 on the S. S. Moorlands Tons Net 2281  
 Master E. Hird Built at Sunderland By whom built William Doxford & Sons Ltd. When built 1910  
 Engines made at Sunderland By whom made William Doxford & Sons Ltd. when made 1910  
 Boilers made at Sunderland By whom made William Doxford & Sons Ltd. when made 1910  
 Registered Horse Power \_\_\_\_\_ Owners The Eskdale Steam Shipping Co. Port belonging to Whitby

## MULTITUBULAR BOILERS

Donkey — Manufacturers of Steel John Spencer & Sons  
 (Letter for record \$ \_\_\_\_\_) Total Heating Surface of Boilers 1004.4 sq. ft. Is forced draft fitted No. No. and Description of Boilers One single ended  
 Working Pressure 100 lbs. Tested by hydraulic pressure to 200 lbs. Date of test 25-9-10  
 No. of Certificate 2846 Can each boiler be worked separately ✓ Area of fire grate in each boiler 28.125 sq. ft. No. and Description of safety valves to each boiler One double, spring loaded Area of each valve 7.0686 sq. in. Pressure to which they are adjusted 104 lbs.  
 Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No.  
 Smallest distance between boilers or uptakes and bunkers or woodwork 6" Mean dia. of boilers 10'-6" Length 10'-0"  
 Material of shell plates Steel Thickness 2 1/2" Range of tensile strength 28-32 tons. Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams S. R. long. seams T. R. Lap. Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 3 1/2"  
 Lap of plates 6 9/16" Per centages of strength of longitudinal joint 46 Working pressure of shell by rules 101.5 lbs. Size of manhole in shell 16" x 12" Size of compensating ring 8 x 2 1/2" No. and Description of Furnaces in each boiler 2. Plain. Material Steel Outside diameter 38 1/2" Length of plain part 46" Thickness of plates 1 1/2" crown 38" bottom 38"  
 Description of longitudinal joint Weld. No. of strengthening rings ✓ Working pressure of furnace by the rules 104 lbs. Combustion chamber plates: Material Steel Thickness: Sides 3/8" Back 1 1/2" Top 1 1/2" Bottom 5/8" Pitch of stays to ditto: Sides 9 x 8 1/4" Back 9 1/4 x 9 1/4"  
 Top 7 1/2 x 10 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 100 lbs. Material of stays Steel Diameter at smallest part 1-17/32" Area supported by each stay 74.3 Working pressure by rules 106 lbs. End plates in steam space: Material Steel Thickness 2 3/8"  
 Pitch of stays 15 1/2" x 15" How are stays secured D. N. Wash. Working pressure by rules 105 lbs. Material of stays Steel Diameter at smallest part 1 23/32"  
 Area supported by each stay 237.5 Working pressure by rules 105 lbs. Material of Front plates at bottom Steel Thickness 7/8" Material of Lower back plate Steel Thickness 3/8" Greatest pitch of stays 12 1/2" Working pressure of plate by rules 100 lbs. Diameter of tubes 3 1/2"  
 Pitch of tubes 4 1/2" x 4 3/4" Material of tube plates Steel Thickness: Front 23/32" Back 5/8" Mean pitch of stays 10 1/16" Pitch across wide water spaces 13 1/2" Working pressures by rules 108 lbs. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6 7/8" x 1 1/4" Length as per rule 2'-9" Distance apart 10 1/2" Number and pitch of Stays in each 2 @ 7 1/8"  
 Working pressure by rules 103 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 \_\_\_\_\_

WILLIAM DOXFORD &amp; SONS, Limited

The foregoing is a correct description,

William Doxford

Manufacturer.

Dates of Survey 1910. Aug. 22, 24, 29. Sep. 2.  
 During progress of work in shops - - -  
 while building During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith yes.Total No. of visits 1

## GENERAL REMARKS

(State quality of workmanship, opinions as to class, &amp;c.)

This Boiler has been built under special survey, the materials and workmanship are of good quality and the hydraulic test proved satisfactory. It has been securely fitted on board & its safety valves adjusted under steam to the above pressure.

Survey Fee ... £ \_\_\_\_\_ When applied for. 19 \_\_\_\_\_  
 Travelling Expenses (if any) £ \_\_\_\_\_ When received. 19 \_\_\_\_\_

William Butler

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

Committee's Minute

FRI. 16 SEP 1910

Assigned

See minute on old Rpt24592 attached

Lloyd's Register  
 W850-0022  
 Foundation