

REPORT ON BOILERS.

SW. APR. 4-1914
SAT. APR. 4-1914

5a. Description of the boiler: **Steel screw steamer "Pontwen"**
 Date, First Survey: **23rd February** Last Survey: **31st March 1914**
 Port of: **MIDDLESBRO'**
 Built at: **Stockton** By whom built: **Messrs Richardson Duck & Co**
 Made at: **Stockton** By whom made: **Messrs Blair & Co Lim.**
 When made: **1914**
 Owners: **Messrs Riley Bros Ltd (N^o 4625)**
 Port belonging to: **Stockton**

WATER TUBULAR BOILERS - MAIN, AUXILIARY OR DONKEY. - Manufacturers of Steel: **John Spencer & Sons**
 Total Heating Surface of Boilers: **863 sq ft** Is forced draft fitted: **no**
 Working Pressure: **120** Tested by hydraulic pressure to: **240** Date of test: **31.3.14**
 Certificate: **5266** Can each boiler be worked separately: **yes** Area of fire grate in each boiler: **29 sq ft**
 No. and Description of valves to each boiler: **2 direct spring** Area of each valve: **4.91** Pressure to which they are adjusted: **125 lb**
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler: **no**
 Distance between boilers or uptakes and bunkers or woodwork: **on upper deck** Mean dia. of boilers: **10'-0"** Length: **15'-0"**
 Thickness of shell plates: **steel** Thickness: **5/8"** Range of tensile strength: **28-32** Are the shell plates welded or flanged: **no**
 Diameter of rivet holes in long. seams: **15/16"** Pitch of rivets: **5 1/2"**
 Width of butt straps: **9 1/2" x 5/8"** Per centages of strength of longitudinal joint: **90.5** Working pressure of shell by rules: **82.9**
 Size of manhole in shell: **19" x 15"** Size of compensating ring: **7' x 1 1/2" dia** No. and Description of Furnaces in each boiler: **2 plain**
 Material: **steel** Outside diameter: **36** Length of plain part: **77"** Thickness of plates: **7/8"**
 No. of strengthening rings: **none** Working pressure of furnace by the rules: **151** Combustion chamber: **10 1/2" x 8"**
 Material: **steel** Thickness: **7/8"** Sides: **10 1/2" x 8"** Back: **10" x 10 1/2"**
 Working pressure by rules: **125** Material of stays: **steel** Diameter at smallest part: **4.11"**
 Area supported by each stay: **84** Working pressure by rules: **140** End plates in steam space: **Material steel Thickness 7/8"**
 How are stays secured: **nuts & washers** Working pressure by rules: **120** Material of stays: **steel** Diameter at smallest part: **4.11"**
 Working pressure by rules: **168** Material of Front plates at bottom: **steel** Thickness: **7/8"** Material of back plate: **steel**
 Thickness: **7/8"** Greatest pitch of stays: **13" x 10 1/2"** Working pressure of plate by rules: **190** Diameter of tubes: **3 1/2"**
 Material of tube plates: **steel** Thickness: **7/8"** Front: **7/8"** Back: **5/8"** Mean pitch of stays: **10 1/2"** Pitch across wide spaces: **14 1/2"**
 Working pressures by rules: **122** Girders to Chamber tops: **Material steel** Depth and thickness of at centre: **7" x 1 1/4"**
 Length as per rule: **27"** Distance apart: **10 1/2"** Number and pitch of Stays in each: **2 @ 8"**
 Superheater or Steam chest: **how connected to boiler** Can the superheater be shut off and the boiler worked: **yes**
 Diameter: **121** Length: **121** Thickness of shell plates: **121** Material: **121** Description of longitudinal joint: **121** Diam. of rivet: **121**
 Pitch of rivets: **121** Working pressure of shell by rules: **121** Diameter of flue: **121** Material of flue plates: **121** Thickness: **121**
 Distance between rings: **121** Working pressure by rules: **121** End plates: **121** Thickness: **121** How stayed: **121**
 Area of safety valves to superheater: **121** Are they fitted with easing gear: **121**

FOR THE FOREGOING IS A CORRECT DESCRIPTION,
RILEY BROS. (BOILERMAKERS) LIMITED. Manufacturer.

Is the approved plan of boiler forwarded herewith: **yes**
 Total No. of visits: **9**

During progress of work in shops: **Feb. 23, 29, Mar. 12, 14, 20, 23, 27, 30, 31**
 During erection on board vessel: **---**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) **This boiler has been built under special survey; is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results. The boiler is to be fitted on board at this port. This boiler has now been satisfactorily secured on board, examined under steam and safety valves adjusted.**

Survey Fee: **£ 2 18-0** When applied for: **191**
 Travelling Expenses (if any): **---** When received: **191**

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

Committee's Minute: **10E JUN. 9-1914**
 Signed: **See minute on H. attached**



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