

# REPORT ON BOILERS.

Received at London Office 29 OCT 1924

Date of writing Report 10 When handed in at Local Office 28/10/24 Port of Newcastle-on-Tyne  
 No. in Survey held at Hebburn-on-Tyne Date, First Survey 26<sup>th</sup> August Last Survey 24<sup>th</sup> Oct. 1924  
 Reg. Book. on the Main Boiler No. 104/Amble 55 to 38. (Number of Visits 13) Gross Tons Net  
 Master Built at Amble By whom built Amble Iron Works Ltd When built 1924  
 Engines made at Great Lamona By whom made Beattie & Co Ltd When made 1924  
 Boilers made at Hebburn-on-Tyne By whom made Palmes & Co Ltd 1041 When made 1924.  
 Registered Horse Power Owners Swansea Pilot Boat Co Ltd Port belonging to Swansea.

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel James White & Sons

(Letter for record S.) Total Heating Surface of Boilers 1200 sq ft Is forced draft fitted No. and Description of Boilers One cyl. m. w. t. Working Pressure 180 lbs. Tested by hydraulic pressure to 320 Date of test 29/10/24.  
 No. of Certificate 9872 Can each boiler be worked separately Area of fire grate in each boiler 0.75 sq ft No. and Description of safety valves to each boiler 2 Spring Seal Valve Date 31/12/24 Area of each valve 2 1/2" Pressure to which they are adjusted 185.  
 Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 8'-0" Mean dia. of boilers 11'-6" Length 10'-6"  
 Material of shell plates Steel Thickness 1 1/8" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams D.R.L. long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1" Pitch of rivets 7"  
 Lap of plates or width of butt straps 1-2 1/8" Per centages of strength of longitudinal joint rivets 92.16% plate 85.71% Working pressure of shell by rules 183 lbs Size of manhole in shell 16" x 12" Size of compensating ring 26" x 30" x 1/8" No. and Description of Furnaces in each boiler 2 2-light Material Steel Outside diameter 3'-4" Length of plain part 7'-0" Thickness of plates crown 3/16" bottom 1/8"  
 Description of longitudinal joint Welded No. of strengthening rings Working pressure of furnace by the rules 182 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 3/4" Top 5/8" Bottom 3/8" Pitch of stays to ditto: Sides 9" x 8 1/2" Back 9" x 8 1/2"  
 Top 9 1/2" x 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 181 lbs Material of stays Steel Area at smallest part 1 1/8" Area supported by each stay 78.75 Working pressure by rules 187 lbs End plates in steam space: Material Steel Thickness 1/8"  
 Pitch of stays 15 1/2" x 16" How are stays secured IN & W. Working pressure by rules 189 lbs Material of stays Steel Area at smallest part 2 1/2"  
 Area supported by each stay 254 sq in Working pressure by rules 190 lbs Material of Front plates at bottom Steel Thickness 1/8" Material of Lower back plate Steel Thickness 1/8" Greatest pitch of stays 15" Working pressure of plate by rules 185 lbs Diameter of tubes 3 1/2"  
 Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 1/8" Back 3/4" Mean pitch of stays 10.125" Pitch across wide water spaces 14 1/2" x 4 1/2" Working pressures by rules 196 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 7 1/2" x 1 1/2" Length as per rule 30" Distance apart 8" Number and pitch of Stays in each 2 @ 9 1/2"  
 Working pressure by rules 200 lbs Steam dome: description of joint to shell % of strength of joint  
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

**SUPERHEATER.** Type Date of Approval of Plan Tested by Hydraulic Pressure to  
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler  
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

For Palmes & Co. Ltd. The foregoing is a correct description, J. Cameron Manufacturer.

Dates of Survey During progress of work in shops - - - 1924 Aug. 26, Sept. 12, 15, 19, 23, Oct. 3, 8, 13, 15, 21, 22, 23, 24. Is the approved plan of boiler forwarded herewith Yes  
 while building During erection on board vessel - - - Total No. of visits 13.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special order & the material & workmanship are good on completion it was tested by hydraulic pressure to 320 lbs & found sound & tight. The boiler is intended for Amble 55 to 38. This boiler has been satisfactorily fitted on board the vessel for protection see Machinery Rpt.

Survey Fee £ 8-0-0 When applied for 2 OCT 1924  
 Travelling Expenses (if any) £ : : When received, 26 Nov 1924

Committee's Minute DUES. 30 DEC 1924 Engineer Surveyor to Lloyd's Register of Shipping.  
 Assigned

