

## REPORT ON BOILERS.

No. 69649

MON. FEB. 26. 1917

Received at London Office

Date of writing Report 20th Feb. 1917 When handed in at Local Office 20th Feb. 1917 Port of Newcastle on Tyne  
 No. in Survey held at Hebburn & Jarrow Date, First Survey 3rd Sept. 1914 Last Survey 16th July 1917  
 Reg. Book. 38 on the S. S. Sunbeam (Number of Visits) Gross 5125 Tons Net 3006  
 Master                      Built at Newcastle By whom built Palmer's Co. Ltd. When built 1917  
 Engines made at Jarrow By whom made Palmer's Co. Ltd. When made 1917  
 Boilers made at Jarrow By whom made Palmer's Co. Ltd. When made 1917  
 Registered Horse Power 446 Owners Burnham Oil Co. Ltd. Port belonging to British

## MULTITUBULAR BOILERS — MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel Spencer & Son Ltd.  
 (Letter for record T) Total Heating Surface of Boilers 1552 sq. ft. Is forced draft fitted Yes No. and Description of Boilers One Single Ended Working Pressure 180 lb. Tested by hydraulic pressure to 360 lb. Date of test 24/11/15  
 No. of Certificate 8524 Can each boiler be worked separately ✓ Area of fire grate in each boiler oil burning No. and Description of safety valves to each boiler Two direct spring Area of each valve 4.9 sq. in. Pressure to which they are adjusted 183 lb. per sq. in.  
 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 3'-0" Mean dia. of boilers 12'-6" Length 11'-6"  
 Material of shell plates Steel Thickness 1 3/32" Range of tensile strength 29/2 to 33 Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams DRP long. seams DRP 5 rivets Diameter of rivet holes in long. seams 1 3/32" Pitch of rivets 8"  
 Length of plates or width of butt straps 17 1/4" Per centages of strength of longitudinal joint rivets 89 plate 85.5 Working pressure of shell by rules 204 lb. Size of manhole in shell 16 x 12" Size of compensating ring McNeil's No. and Description of Furnaces in each boiler 2 Brighton Material Steel Outside diameter 4' 8" Length of plain part top Thickness of plates crown 19/32" bottom 19/32"  
 Description of longitudinal joint Welded No. of strengthening rings ✓ Working pressure of furnace by the rules 196 Combustion chamber plates: Material Steel Thickness: Sides 45/64" Back 1/16" Top 45/64" Bottom 7/8" Pitch of stays to ditto: Sides 10 x 7 3/4" Back 9 1/2 x 8"  
 Top 10 x 5 3/8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 190 Material of stays Iron Diameter at smallest part 2.360 Area supported by each stay 8.7 Working pressure by rules 199 End plates in steam space: Material Steel Thickness 1 3/32"  
 Pitch of stays 18 1/4 x 1 1/4" How are stays secured by nuts Working pressure by rules 190 Material of stays Steel Diameter at smallest part 7.24  
 Area supported by each stay 33.30 Working pressure by rules 224 Material of Front plates at bottom Steel Thickness 1" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 14" Working pressure of plate by rules 203 Diameter of tubes 3  
 Pitch of tubes 4 1/4" Material of tube plates Steel Thickness: Front 1" Back 13/16" Mean pitch of stays 10 5/8" Pitch across wide water spaces 14" Working pressures by rules 195 lb. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9" x 1 1/2" Length as per rule 32 7/8" Distance apart 8 7/8" Number and pitch of Stays in each Iron 10"  
 Working pressure by rules 207 lb. 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,

Palmer's Shipbuilding &amp; Iron Works, Ltd. Manufacturer.

Dates of Survey                      During progress of work in shops See Mch Report  
 while building                      During erection on board vessel                     

Is the approved plan of boiler forwarded herewith? Yes  
 Total No. of visits                     

## GENERAL REMARKS

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

This Auxiliary Boiler has been built under special survey, the materials & workmanship are of good quality. It has been securely fitted on board and the safety valves adjusted under steam.  
 See attached report on machinery & main boilers.

Survey Fee                      £                      When applied for, 191  
 Travelling Expenses (if any) £                      When received, 191

Committee's Minute

FRI. 2 MAR. 1917

Assigned

George Hurdock 2020  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

+ Thomas Field

Lloyd's Register Foundation

W492-0273