

# 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 Sunban (Number of Visits) Gross 5125 Tons Net 3006  
 Master \_\_\_\_\_ Built at Newcastle By whom built Palmers Co Ltd When built 1917  
 Engines made at Jarrow By whom made Palmers Co Ltd When made 1917  
 Boilers made at Jarrow By whom made Palmers Co Ltd When made 1917  
 Registered Horse Power 446 Owners Burnch Oil Co Ltd Port belonging to British

## MULTITUBULAR BOILERS - MAIN, AUXILIARY OR DONKEY. - Manufacturers of Steel Spencer & Sons 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 lbs Tested by hydraulic pressure to 360 lbs Date of test 24/11/15  
 No. of Certificate 8524 Can each boiler be worked separately Yes 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 lbs 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. Yes  
 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 1/2 to 33 tons per sq in Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams DR Rivet long. seams DR Rivet 5 rivets Diameter of rivet holes in long. seams 1 5/32" 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 lbs 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 1'-0" bottom 1'-0" Thickness of plates crown 1 1/32" bottom 1 1/32"  
 Description of longitudinal joint Welded No. of strengthening rings 4 Working pressure of furnace by the rules 196 Combustion chamber plates: Material Steel Thickness: Sides 4 5/16" Back 1 1/16" Top 4 5/16" Bottom 7/8" Pitch of stays to ditto: Sides 10 7/8" Back 9 1/2 x 8"  
 Top 10 x 5 7/8" 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 5/32"  
 Pitch of stays 15 1/2 x 1 1/2" How are stays secured By nuts & washers Working pressure by rules 190 Material of stays Steel Diameter at smallest part 7.24  
 Area supported by each stay 3330 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 lbs 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 Two 10"  
 Working pressure by rules 207 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,

Palmers Shipbuilding & Iron Works Ltd Manufacturer.

Dates of Survey See Mchly Report  
 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 \_\_\_\_\_  
Manager, Engng

GENERAL REMARKS (State quality of workmanship, opinions as to class, &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

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

Committee's Minute FRI. - 2 MAR. 1917

Assigned

