

# REPORT ON BOILERS.

Bel 9717  
No. 90708

11 APR 1921

8 NOV 1921

Received at London Office

Survey Report No. 8-19-26 When handed in at Local Office -8 NOV 1921 Port of London

Survey held at Stitchins Date, First Survey 11<sup>th</sup> OCTOBER 1926 Last Survey Nov. 5<sup>th</sup> 1926  
(Number of Visits 3)

on the Spencer, Rosecourt Works Steel Boilers Tons } Gross }  
"PORT FREMANTLE" Net }

made at Belfast By whom built New-botham Clark Yard No. 489 When built 1926

made at Sunderland By whom made W. Steward & Sons Ltd. Engine No. 154 When made 1927

made at \_\_\_\_\_ By whom made \_\_\_\_\_ Boiler No. \_\_\_\_\_ When made \_\_\_\_\_

Commonwealth & Dominion Line Ltd. Port belonging to London

Heating  
TICAL DONKEY BOILER.  
By whom made New-botham Clark No. 6004 When made 1926 Where fixed \_\_\_\_\_

Manufacturers of Steel Guest Keen & Neale Ltd.  
Heating Surface of Boiler 282 sq ft Is forced draught fitted no Coal or Oil fired Waste-gas

Description of Boilers One Spencer, Rosecourt Works Kirk Patrick Working pressure 180 lbs per sq in

by hydraulic pressure to 200 lbs per sq in Date of test Nov. 5<sup>th</sup> 1926 No. of Certificate 1301

of Firegrate in each Boiler \_\_\_\_\_ No. and Description of safety valves to each boiler 2 Cockburn's Spring

of each set of valves per boiler } per rule 3.50" Pressure to which they are adjusted 100 lbs. Are they fitted with easing gear Yes  
} as fitted 3.50"

Whether steam from main boilers can enter the donkey boiler Yes Smallest distance between boiler or uptake and bunkers \_\_\_\_\_

Is oil fuel carried in the double bottom under boiler Yes Smallest distance between base of boiler and tank top plating \_\_\_\_\_

Is the base of the boiler insulated Yes Largest internal dia. of boiler 3ft Height 9ft

plates: Material Steel Tensile strength \_\_\_\_\_ Thickness 3/8" + 1/2"

the shell plates welded or flanged no Description of riveting: circ. seams { end SR } long. seams B.R. Lap  
} inter. SR

of rivet holes in { circ. seams 13/16 } Pitch of rivets { 1 7/8 } Percentage of strength of circ. seams { plate 58.7 } of Longitudinal joint { plate 69.5 }  
} long. seams 1 1/16 } { 2 21/32 } { rivets 60.5 } { rivets 85.5 }  
} } } { combined \_\_\_\_\_ }

Working pressure of shell by rules 170 Thickness of butt straps { outer \_\_\_\_\_ }  
} inner \_\_\_\_\_

Crown: Whether complete hemisphere, dished partial spherical, or flat \_\_\_\_\_ Material \_\_\_\_\_

Shell strength Thickness \_\_\_\_\_ Radius \_\_\_\_\_ Working pressure by rules \_\_\_\_\_

Description of Furnace: Plain, spherical, or dished crown \_\_\_\_\_ Material \_\_\_\_\_ Tensile strength \_\_\_\_\_

Length \_\_\_\_\_ Working pressure by rules \_\_\_\_\_

of support stays circumferentially \_\_\_\_\_ and vertically \_\_\_\_\_ Are stays fitted with nuts or riveted over \_\_\_\_\_

Diameter of stays over thread \_\_\_\_\_ Radius of spherical or dished furnace crown \_\_\_\_\_ Working pressure by rule \_\_\_\_\_

Thickness of Ogee Ring \_\_\_\_\_ Diameter as per rule { D \_\_\_\_\_ } Working pressure by rule \_\_\_\_\_  
} d \_\_\_\_\_

Combustion Chamber: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Thickness of top plate \_\_\_\_\_

Thickness if dished \_\_\_\_\_ Working pressure by rule \_\_\_\_\_ Thickness of back plate \_\_\_\_\_ Diameter if circular \_\_\_\_\_

Length as per rule \_\_\_\_\_ Pitch of stays \_\_\_\_\_ Are stays fitted with nuts or riveted over \_\_\_\_\_

Diameter of stays over thread \_\_\_\_\_ Working pressure of back plate by rules \_\_\_\_\_

Plates: Material { front Steel } Tensile strength { \_\_\_\_\_ } Thickness { 3/8 } Mean pitch of stay tubes in nests \_\_\_\_\_  
} back \_\_\_\_\_

comprising shell, Dia. as per rule { front \_\_\_\_\_ } Pitch in outer vertical rows { \_\_\_\_\_ } Dia. of tube holes FRONT { stay \_\_\_\_\_ } BACK { stay \_\_\_\_\_ }  
} back \_\_\_\_\_ } { plain 2 1/8 } { plain 2" }

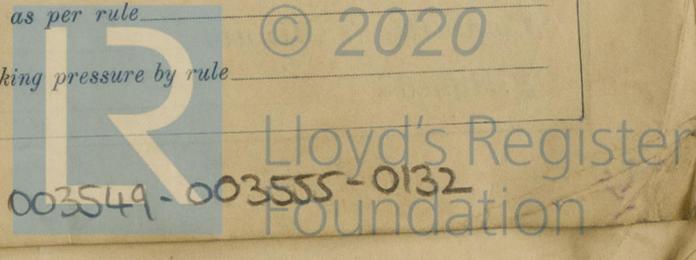
Working pressure by rules { front 100 }  
} back 100

Working pressure of back plate by rules \_\_\_\_\_

Material \_\_\_\_\_ Tensile strength \_\_\_\_\_

Length as per rule \_\_\_\_\_ Working pressure by rule \_\_\_\_\_

No. and pitch of stays in each \_\_\_\_\_



Crown stays: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Diameter { at body of stay, or over threads. \_\_\_\_\_

No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_

Screw stays: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Diameter { at turned off part, or over threads. \_\_\_\_\_ No. of threads per inch \_\_\_\_\_

Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Are the stays drilled at the outer ends \_\_\_\_\_

Tubes: Material Steel External diameter { plain 2" Swelled to 2 1/4" Thickness { 10 lbs 9 ✓

No. of threads per inch \_\_\_\_\_ Pitch of tubes 3 x 3" Working pressure by rules 100 lbs

Manhole Compensation: Size of opening in shell plate 14 x 11 ✓ Section of compensating ring 24 x 21 ✓ No. of rivets and diameter \_\_\_\_\_

of rivet holes 24 - 1 3/16 ✓ Outer row rivet pitch at ends 5" ✓ Depth of flange if manhole flanged \_\_\_\_\_

Uptake: External diameter \_\_\_\_\_ Thickness of uptake plate \_\_\_\_\_

Cross Tubes: No. \_\_\_\_\_ External diameters { \_\_\_\_\_ Thickness of plates \_\_\_\_\_

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes

The foregoing is a correct description,  
SPENCER-BONECOURT LTD.  
N. Jackson Manufacturer.

Dates of Survey { During progress of work in shops - - } 1926 - Oct. 11-21. Nov 5. Is the approved plan of boiler forwarded herewith (If not state date of approval.) Yes  
{ During erection on board vessel - - } \_\_\_\_\_ Total No. of visits 3

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

*This Boiler has been built under Special Survey in accordance with the plan & the British Rules. The steel used in its construction has been tested according to the Rules.*

*The workmanship is good.*

*Upon completion the Boiler was tested by hydraulic pressure to 200 lbs per sq. inch and showed no sign of weakness or defect.*

*The Boiler is stamped:*

*No. 1301  
Hydr. test  
200 lbs  
WP. 100 lbs  
I.A.C. 5. 11. 26.*

*This boiler has been efficiently installed centrally on an upper deck at the forward end of the engine room. The safety valves have been adjusted under steam to 100 lbs sq. inch. Boring jet is fitted. In my opinion the boiler is eligible for a classed vessel.*

*R. Lee Amess.*

Survey Fee ... .. £ 4 4 9 When applied for, -8 NOV 1926  
Travelling Expenses (if any) £ 2 11 0 When received, 16<sup>th</sup> Nov. 1926.

Committee's Minute  
Assigned

TOES. 12 APR 1927  
*Dec - Bel. Rpt. 9717*

*H.P. Cornish*  
Engineer Surveyor to Lloyd's Register of Shipping.

