

# REPORT ON BOILERS.

No. 16832

13 MAR 1930

Received at London Office

Date of writing Report 7.3.30 When handed in at Local Office 11.3.30 Port of Grimsby

No. in Reg. Book 84463 on the TWIN SC. SILVERTEAK Date, First Survey 18.12.29 Last Survey 7.3.30 (Number of Visits 11) Gross Tons Net

Built at BELFAST By whom built Harland & Wolff Ltd. Yard No. 884 When built 1930

Engines made at BELFAST By whom made HARLAND + WOLFF LTD. Engine No. 884 When made 1930

Boilers made at Lincoln By whom made Babcock & Wilcox Ltd. Boiler No. 73/460 When made 1930

Owners THE SILVER LINE LD. (STANLEY + JOHN THOMPSON LD. MGRS.) Port belonging to LONDON

## VERTICAL DONKEY BOILER.

Made at Lincoln By whom made Babcock & Wilcox Ltd. Boiler No. 73/460 When made 1930 Where fixed FORE END OF MOTOR ROOM IN FUNNEL

Manufacturers of Steel Parkgate 15 Lbs. Ltd. & Appleby Iron Co. Ltd.

Total Heating Surface of Boiler 520 sq. ft. Is forced draught fitted No Coal or Oil fired Oil fired

No. and Description of Boilers one Blackston Patent water heater Working pressure 100 lb.

Tested by hydraulic pressure to 200 lb. Date of test 21st February 1930 No. of Certificate 287

Area of Firegrate in each Boiler none No. and Description of safety valves to each boiler one, double, spring loaded

Area of each set of valves per boiler } per rule 6.78 sq. ft. } as fitted 9.81 sq. ft. Pressure to which they are adjusted not adjusted Are they fitted with easing gear yes

State whether steam from main boilers can enter the donkey boiler N.R. VALVE Smallest distance between boiler or uptake and bunkers or woodwork ✓

Is oil fuel carried in the double bottom under boiler No. Smallest distance between base of boiler and tank top plating ✓

Is the base of the boiler insulated ✓ Largest internal dia. of boiler 6'-0" Height 11'-9"

Shell plates: Material S.L. steel Tensile strength 28/32 Tons Thickness 1/2"

Are the shell plates welded or flanged no Description of riveting: circ. seams 9 S.H. Lap long. seams D.K. D.B. Straps

Dia. of rivet holes in } circ. seams 7/8" } Pitch of rivets 2" x 2 5/8" } Percentage of strength of circ. seams } plate 58.25 } rivets 49.5 } of Longitudinal joint } rivets 114 } combined 114

Working pressure of shell by rules 143 lb. Thickness of butt straps } outer 7/16" } inner 7/16"

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat flat Material S.L. steel

Tensile strength 26/30 Tons Thickness 1/16" Radius - Working pressure by rules 690 lb.

Description of Furnace: Plain, spherical, or dished crown dished Material S.L. steel Tensile strength 26/30 Tons

Thickness 1/16" External diameter } top 5'-2 5/8" } Length as per rule 8'-1 1/2" Working pressure by rules 110 lb.

Pitch 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 4'-6" Working pressure by rule 127 lb.

Thickness of Ogee Ring 1" Diameter as per rule } D 5'-11" } Working pressure by rule 214 lb.

Combustion Chamber: Material - Tensile strength - Thickness of top plate -

Radius 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 ✓

Tube Plates: Material } front ✓ } Tensile strength } Thickness } Mean pitch of stay tubes in nests ✓

If comprising shell, Dia. as per rule } front ✓ } Pitch in outer vertical rows } Dia. of tube holes FRONT } BACK } Working pressure by rules } front ✓ } back ✓

Is each alternate tube in outer vertical rows a stay tube ✓ Working pressure by rules } front ✓ } back ✓

Girders to combustion chamber tops: Material ✓ Tensile strength ✓

Depth and thickness of girder at centre ✓ Length as per rule ✓

Distance apart ✓ No. and pitch of stays in each ✓ Working pressure by rule ✓



**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 *S. L. steel* External diameter  { plain *3 1/2"* stay *5 1/4"* } Thickness  *6 Bls. 8.*  
 No. of threads per inch  Pitch of tubes  Working pressure by rules   
**Manhole Compensation:** Size of opening in shell plate  Section of compensating ring  No. of rivets and diameter of rivet holes   
 Outer row rivet pitch at ends  Depth of flange if manhole flanged   
**Uptake:** External diameter *3' - 10 3/8"*  Thickness of uptake plate *11/16"*   
**Cross Tubes:** No.  External diameters  Thickness of plates

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *yes*

The foregoing is a correct description.  
*W. & WILCOX L.*  
*John* (Lincoln Branch) Manufacturer.

*Annual Survey Report*

Dates of Survey  During progress of work in shops - *1929 Dec 18 1930 Jan 2, 9, 17, 27, 31 Feb 11, 14, 18, 24* Is the approved plan of boiler forwarded herewith  *40*  
 while building  During erection on board vessel - - - - - *see 7* (If not state date of approval.) *22/11/29*  
 Total No. of visits *11*

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under special survey and in accordance with the Rules and approved plan as per Secy's letter 22/11/29. The materials and workmanship are good.*

*This boiler has been efficiently fastened on an upper deck platform in the funnel of the vessel. The safety valves have been adjusted under steam. The boiler is heated by oil burners or waste heat from the exhaust gases. The accumulation did not exceed 8 lbs.*

*Rlee Amos*  
*Belfast.*

Survey Fee ... .. £ 4 : 4 : When applied for, *26/21* 19 *30*  
 Travelling Expenses (if any) £ 2 : 17 : 6 When received, *5 June* 19 *30*

Committee's Minute *FRI. 26 SEP 1930*  
 Assigned *Sec F. E. Rpt.*

