

27 SEP 1930

Bel 10,468

Rpt. 5b.

REPORT ON BOILERS.

No. 16880

22 APR 1930

Received at London Office

Date of writing Report 17.4.30 When handed in at Local Office 17.4.30 Port of Trinidad

No. in Survey held at Lincoln Date, First Survey 18.12.29 Last Survey 15-4-1930

86460 on the STEEL TWIN SC. SILVERSANDAL (Number of Visits 9) Tons } Gross } Net }

Built at BELFAST By whom built Harland & Wolff Ltd. Yard No. 885 When built 1930

Engines made at BELFAST By whom made HARLAND & WOLFF LD. Engine No. 885 When made 1930

Boilers made at Lincoln By whom made Kabcock & Belter Ltd. Boiler No. 73/4608 When made 1930

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

VERTICAL DONKEY BOILER.

Made at Lincoln By whom made Kabcock & Belter Ltd. Boiler No. 73/4608 When made 1930 Where fixed IN FUNNEL

Manufacturers of Steel

Total Heating Surface of Boiler 520 sq. ft. Is forced draught fitted Coal or Oil fired + Exhaust

No. and Description of Boilers One Babcock Patent Water Heat Kettle Working pressure 100 lb.

Tested by hydraulic pressure to 200 lb. Date of test 15-4-30 No. of Certificate 290

Area of Firegrate in each Boiler 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. } Pressure to which they are adjusted adjustable are they fitted with easing gear yes

State whether steam from main boilers can enter the donkey boiler N.R. VALVE FITTED 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 No 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. L. Lap long. seams D. K. D. B. Stays

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

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 11/16" 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 1/16" External diameter } top 5'-2 1/8" } 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 } b 5'-11" } Working pressure by rule 214 lb.

Combustion Chamber: Material S. L. steel Tensile strength 26/30 Tons Thickness of top plate 1 1/16"

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 S. L. steel } Tensile strength } Thickness } Mean pitch of stay tubes in nests } back S. L. steel

If comprising shell, Dia. as per rule } front - } Pitch in outer vertical rows } Dia. of tube holes FRONT } stay } BACK } stay } plain } plain }

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

Girders to combustion chamber tops: Material S. L. steel Tensile strength 26/30 Tons

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. K. steel* External diameter plain *3 1/4" to 5 1/4"* Thickness *6 lbs 9*

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 *1 1/16"*

Cross Tubes: No. External diameters Thickness of plates

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

The foregoing is a correct description.
BABCOCK & WILCOX LTD
 (Lincoln Branch) Manufacturer.

Annual Survey Request.

Dates of Survey while building: During progress of work in shops - *1929 Dec 18 1930 Jan 2, 9, 27, 31 Feb 18 Apr 7, 9* Is the approved plan of boiler forwarded herewith (If not state date of approval.) *yes*

During erection on board vessel - - - - - Total No. of visits *9*

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 Section letter 22/11/29. The materials and workmanship are good.*

This case is a duplicate of Gas. Rpt. No. 16832

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 fires or waste heat from the exhaust gases. The accumulation did not exceed 8 lbs.

*R. Lee James
 Belfast.*

Survey Fee £ 4 : 4 : When applied for. *17.4.30*
 Travelling Expenses (if any) £ 2 : 8 : When received. *18.10.30*

W. G. McQuilley
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 3 OCT 1930*
 Assigned *See F. E. Rpt.*

