

# REPORT ON BOILERS.

Sed. No. 29458  
Don No. 91315

Received at London Office 25 APL 1927 23 JUN 1927

Date of writing Report 25 APL 1927 When handed in at Local Office 25 APL 1927 Port of London

No. in Survey held at Mitchell Date, First Survey 13<sup>th</sup> SEPTEMBER 1926 Last Survey March 23<sup>rd</sup> 1927  
Reg. Book. MOTOR V. "SILVER GUAVA"  
on the Spencer-Roveret back Heat Boiler No. 5822 (Number of Visits 3) Tons { Gross 5294 Net 3088  
for Wm Dwyer & Sons

Built at Sunderland By whom built Sir James Caird & Co. Yard No. 896 When built 1927  
Engines made at Sunderland By whom made Wm Dwyer & Sons Engine No. 159 When made 1927  
Boilers made at By whom made Boiler No. When made  
Owners Silver Line Ltd Port belonging to London

## VERTICAL DONKEY BOILER. <sup>waste heat</sup>

Made at Mitchell By whom made Spencer-Roveret Boiler No. 5822 When made 1927 Where fixed Engine Room  
Manufacturers of Steel Smith & Busham Steel & C.

Total Heating Surface of Boiler 143 sq ft Is forced draught fitted  Coal or Oil fired Waste Heat

No. and Description of Boilers One Kirk's Patent Working pressure 100 lbs

Tested by hydraulic pressure to 200 lbs Date of test 30-3-27 No. of Certificate 1308

Area of Firegrate in each Boiler Nil No. and Description of safety valves to each boiler 2 Spring loaded

Area of each set of valves per boiler { per rule 3.50 as fitted 3.50 Pressure to which they are adjusted 105 lbs Are they fitted with easing gear Yes

State whether steam from <sup>aux</sup> ~~main~~ boilers can enter the donkey boiler No Smallest distance between boiler or uptake and bunkers

or woodwork  Is oil fuel carried in the double bottom under boiler No <sup>waste heat</sup> Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated open ended Largest internal dia. of boiler 3 ft Height 6' 9"

Shell plates: Material Steel Tensile strength 28-32 Thickness 3/8

Are the shell plates welded or flanged No Description of riveting: circ. seams { end SA inter. long. seams B.L. lap

Dia. of rivet holes in { circ. seams 13/16 Pitch of rivets { 2- 2 2/3 3/2 Percentage of strength of circ. seams { plate 59.3 rivets 55.7 of Longitudinal joint { plate 58.4 rivets 84.2 combined

Working pressure of shell by rules 150 Thickness of butt straps { outer inner

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

Tensile strength Thickness Radius Working pressure by rules

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

Thickness External diameter { top bottom Length as per rule Working pressure by rules

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 Working pressure by rule

Thickness of Ogee Ring Diameter as per rule { D a Working pressure by rule

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 back Steel Tensile strength { 26-30 Thickness { 5/8 Mean pitch of stay tubes in nests

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

Is each alternate tube in outer vertical rows a stay tube No Working pressure by rules { front 100 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 *Steel* External diameter { plain *2" Suller* \_\_\_\_\_ or *5 2 1/8"* \_\_\_\_\_ Thickness { \_\_\_\_\_  
 No. of threads per inch \_\_\_\_\_ Pitch of tubes *3" x 3"* Working pressure by rules \_\_\_\_\_

**Manhole Compensation:** Size of opening in shell plate *14 x 11* Section of compensating ring *24 x 21 x 9/16* No. of rivets and diameter \_\_\_\_\_  
 of rivet holes *24 - 13/16* Outer row rivet pitch at ends *5 3/4"* 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*

SPENCER-HOPWOOD, LTD.  
 The foregoing is a correct description,

*J. P. Bradley* Manufacturer.  
 WORKS-MANAGER

Dates of Survey while building { During progress of work in shops - *1926 - SEP 13* \_\_\_\_\_  
 { During erection on board vessel - *1927 - MAR 21 30* \_\_\_\_\_  
 Is the approved plan of boiler forwarded herewith (If not state date of approval) *Yes* \_\_\_\_\_  
 Total No. of visits *3 (In Steps)* \_\_\_\_\_

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 Society's Rules -*  
*The workmanship is good. The material has been tested according to the Rules.*  
*Upon completion the boiler was tested by hydraulic pressure to 200 lbs per sq. inch and showed no weakness or signs of defect.*  
*The Boiler is stamped: - No. 1308*  
*Hydro test 200 lbs*  
*W.P. 100 lbs.*  
*30-3-27 H.P.C.*  
*This boiler has been satisfactorily fitted in the vessel & the safety valves adjusted under steam to the pressure stated on leaf for notation see machinery report.*

Survey Fee ... £ *4 : 4 :* When applied for, *25 APL 1927*  
 Travelling Expenses (if any) £ *1 : 15 : 10* When received, *-4 MAY 1927*

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

Committee's Minute Assigned

TUES, 28 JUN 1927  
*See Sta. P.O. rpt No 29458 attached*



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