

REC'D NEW YORK MAY 2 1931

# REPORT ON BOILERS.

No. 3381

Received at London Office

19 MAY 1931

Date of writing Report 24<sup>th</sup> Apr. 1931 When handed in at Local Office 24<sup>th</sup> April 1931 Port of Montreal

No. in Survey held at Montreal Date, First Survey 9<sup>th</sup> March Last Survey 17<sup>th</sup> April 1931

Reg. Book 87599 on the Twin Is. Is "Vancolite" (Number of Visits 9) Tons { Gross 11404 Net 5691

Built at Glasgow By whom built A. Stephen & Sons Ltd. Yard No. ✓ When built 1928-5

Engines made at Glasgow By whom made A. Stephen & Sons Ltd. Engine No. ✓ When made 1928

Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓

Owners Imperial Oil Ltd. (H. B. Elsworth mgr.) Port belonging to Montreal

## VERTICAL DONKEY BOILER.

Made at Montreal By whom made Canadian Vickers Ltd. Boiler No. 632 When made 1931 Where fixed Behind engines

Manufacturers of Steel Carnegie Steel Co. Homestead, Pa.

Total Heating Surface of Boiler 1559 Is forced draught fitted no Coal or Oil fired no

No. and Description of Boilers Two Exhaust Gas Boilers Working pressure 100 lbs.

Tested by hydraulic pressure to 200 lbs. Date of test 30-3-31 & 7-4-31 No. of Certificate 95496

Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler One 3 1/2" dia. Twin on each Boiler

Area of each set of valves per boiler { per rule 19-242 as fitted 19-242 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 ✓ Smallest distance between boiler or uptake and bunkers

or woodwork ✓ Is oil fuel carried in the double bottom under boiler ✓ Smallest distance between base of boiler and tank top plating

✓ Is the base of the boiler insulated yes Largest internal dia. of boiler 5'-10" Height 9'-5 1/4"

Shell plates: Material Steel Tensile strength 28 to 32 long tons Thickness 9/16"

Are the shell plates welded or flanged Flanged Description of riveting: circ. seams { end double rivet inter. ✓ long seams double rivet lap

Dia. of rivet holes in { circ. seams 13/16" Pitch of rivets { 3.0/5" Percentage of strength of circ. seams { plate 69.3% rivets 66.2% Longitudinal joint { plate 68.9% rivets 66.84% combined ✓

Working pressure of shell by rules 147 1/2 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 ✓ d ✓ 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 { 2 1/2" Steel Tensile strength { 26 to 30 tons Thickness { 7/8" Mean pitch of stay tubes in nests 10" x 8 1/4"

If comprising shell, Dia. as per rule { front ✓ back ✓ Pitch in outer vertical rows { 2 1/2" Dia. of tube holes FRONT { stay 1 5/8" plain 1 1/2" BACK { stay 1 3/4" plain 1 1/2"

Is each alternate tube in outer vertical rows a stay tube ✓ Working pressure by rules { front 307 back 307

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 ✓

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**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 (seamless)* External diameter ☒ plain *1 1/2"* stay *1 1/2"* Thickness ☒ *#11 B.W.G. Plain 1/4" stay*  
 No. of threads per inch *nine* 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 ☒ Thickness of uptake plate ☒  
**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. H. Smith* Manufacturer  
*Canadian Vickers, Ltd.*

Dates of Survey ☒ During progress of work in shops - *Mar. 9. 13. 15. 23. 26. 30. April. 2. 7. 17.* Is the approved plan of boiler forwarded herewith *Yes*  
 while building ☒ During erection on board vessel - *Feb. 13. 1931.* (If not state date of approval.)  
 Total No. of visits *9.*

Is this Boiler a duplicate of a previous case *No.* If so, state Vessel's name and Report No. ☒

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

*These Boilers have been built under special survey. Materials and workmanship good. Hydraulic tests satisfactory.*

*The Boilers are complete with mountings. The mountings have been hydraulically tested to 300 lbs. per sq. in.*

*The safety valves will be adjusted by the Chief Engineer when the vessel is working under full power at sea.*

*These Boilers are exhaust gas fired only.*

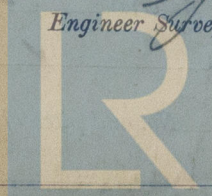
*The Boilers will be fitted on board the "Vancolite" when she returns to Montreal in about four months time.*

Survey Fee ... £ *85.00* When applied for, *24th April 1931*  
 Travelling Expenses (if any) £ *9.00* When received, *19*

Committee's Minute

Assigned *See Gen. Rpt. No. 52154*

*G. Allan*  
 Engineer Surveyor to Lloyd's Register of Shipping



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