

REC'D NEW YORK Dec. 24 1918  
**REPORT ON MACHINERY** No. 2576  
 Received at London Office MON. 20 JAN. 1919

Survey Report Oct. 9, 1917 when handed in at Local Office  
 Port of **SAN FRANCISCO**  
 Survey held at **Oakland, California** Date, First Survey **August 4th** Last Survey **Sept. 12th, 1917**  
 on the **Fr. Mast. Aux. Sch. "VERDUN"** (Engines Nos. 119 and 120.) (Number of Visits **Seven**)

**S. L. Guesdon** Built at Savannah, Georgia By whom built **Sultic Engineering Works** Tons } Gross **1352.19**  
 } Net **828.34**  
 When built **1918**

Made at **Oakland, Cal.** By whom made **Skandia Pacific Oil Engine Co.** when made **1917**  
 By whom made \_\_\_\_\_ when made \_\_\_\_\_  
 Owners **French Government.** Port belonging to **Havre.**

Horse Power **240 each** Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_  
 Is Refrigerating Machinery fitted for cargo purposes **No.** Is Electric Light fitted **Yes.**

**ES, &c.** — Description of Engines **Crude Oil engines - 2 stroke cycle** No. of Cylinders **8** No. of Cranks **4**  
 Length of Stroke **15.748** Revs. per minute **300** Dia. of Screw shaft **6.3** Material of screw shaft **S. H. Steel**

Is the after end of the liner made water tight **Yes.**  
 If the liner is in more than one length are the joints burned **Yes.**  
 If the liner does not fit tightly at the part \_\_\_\_\_

Length of stern bush **3'-0"**  
 Dia. of Crank shaft journals **5.2** Dia. of Crank pin **6.69** Size of Crank webs **15.9x8.6x3.8**  
 Dia. of thrust shaft under \_\_\_\_\_

No. of Blades **3** State whether moveable **No.** Total surface **160 sq in per blade.**  
 Can one be overhauled while the other is at work **Yes.**

Sizes of Pumps **6.4-6.7 7.2-5.6** No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Holds, &c. **2 - 2 1/2 from holds.**

Is a separate Donkey Suction fitted in Engine room & size **Yes.**  
 Are the sluices on Engine room bulkheads always accessible **Yes.**

Are the Blow Off Cocks fitted with a spigot and brass covering plate **Yes.**  
 How are they protected \_\_\_\_\_

Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **Yes.**  
 Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges **Yes.**

Examination of completion of fitting of Sea Connections **15<sup>th</sup> May** of Stern Tube **1<sup>st</sup> May** Screw shaft and Propeller **15<sup>th</sup> May.**  
 Is it fitted with a watertight door **Yes.** worked from \_\_\_\_\_

**ES, &c.** — (Letter for record \_\_\_\_\_) Manufacturers of Steel \_\_\_\_\_

Is Forced Draft fitted \_\_\_\_\_ No. and Description of Boilers \_\_\_\_\_  
 Tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ No. of Certificate \_\_\_\_\_

Area of fire grate in each boiler \_\_\_\_\_ No. and Description of Safety Valves to \_\_\_\_\_  
 Pressure to which they are adjusted \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_

Mean dia. of boilers \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_  
 Are the shell plates welded or flanged \_\_\_\_\_ Descrip. of riveting: cir. seams \_\_\_\_\_

Working pressure of shell by rules \_\_\_\_\_ Size of manhole in shell \_\_\_\_\_  
 No. and Description of Furnaces in each boiler \_\_\_\_\_ Material \_\_\_\_\_ Outside diameter \_\_\_\_\_

Thickness of plates \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ No. of strengthening rings \_\_\_\_\_  
 Combustion chamber plates: Material \_\_\_\_\_ Thickness: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_

Working pressure by rules \_\_\_\_\_  
 Diameter at smallest part \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates in steam space: \_\_\_\_\_

How are stays secured \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of stays \_\_\_\_\_  
 Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of Front plates at bottom \_\_\_\_\_

Material of Lower back plate \_\_\_\_\_ Thickness \_\_\_\_\_ Greatest pitch of stays \_\_\_\_\_ Working pressure of plate by rules \_\_\_\_\_  
 Material of tube plates \_\_\_\_\_ Thickness: Front \_\_\_\_\_ Back \_\_\_\_\_ Mean pitch of stays \_\_\_\_\_

Working pressures by rules \_\_\_\_\_ Girders to Chamber tops: Material \_\_\_\_\_ Depth and \_\_\_\_\_  
 Length as per rule \_\_\_\_\_ Distance apart \_\_\_\_\_ Number and pitch of stays in each \_\_\_\_\_

Superheater or Steam chest; how connected to boiler \_\_\_\_\_ Can the superheater be shut off and the boiler worked \_\_\_\_\_  
 Diameter \_\_\_\_\_ Length \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_ Material \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ Diam. of rivet \_\_\_\_\_  
 Working pressure of shell by rules \_\_\_\_\_ Diameter of flue \_\_\_\_\_ Material of flue plates \_\_\_\_\_ Thickness \_\_\_\_\_  
 Distance between rings \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates: Thickness \_\_\_\_\_ How stayed \_\_\_\_\_  
 Area of safety valves to superheater \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_

W796-0023

IS A DONKEY BOILER FITTED?

Yes.

If so, is a report now forwarded? Yes.

SPARE GEAR.

State the articles supplied:—

Cylinder cover complete with valve seats springs etc; One complete set of valves, valve seats and springs for one cylinder; One piston with rings, springs & nuts; One set piston & connecting rods, bolts and nuts; Two wrist pins; Two main bearings, bolts & nuts; One set of coupling bolts for thrust and tail shafts; One fuel pump complete for main engine; One hand oil pump; One set of valves for water circulating pump; One spare burner lamp; A quantity of assorted bolts & nuts, including one set of cylinder cover studs and nuts; Lengths of pipe suitable for fuel delivery pipes.

The foregoing is a correct description,

SKANDIA PACIFIC OIL ENGINE CO.

*M. Lovell*

Manufacturer.

Dates of Survey while building: During progress of work in shops -- August 4th, 13th, 27th, 30th, September 5th, 11th, 15th, 1917. During erection on board vessel -- Jan 15, 23, Feb. 4, 13, Mar 4, 12, 17, Apr 5, 17, 23, May 1, 15, 22, 28, June 6, 14, 19, July 3, 24, Aug 8, 24, Sept 4, 18, Oct 1, 1917. Total No. of visits 34. Is the approved plan of main boiler forwarded herewith? Yes.

Dates of Examination of principal parts—Cylinders Aug. 4 Slides Aug. 4 Covers Aug. 13 Pistons Aug. 30 Rods Aug. 27 Crank shaft Sept. 5 Thrust shaft Sept. 5 Tunnel shafts Sept. 5 Screw shaft 17<sup>th</sup> April Propeller 15<sup>th</sup> May. Stern tube 1<sup>st</sup> May. Steam pipes tested Engine and boiler seatings 4 March Engines holding down bolts 5<sup>th</sup> Oct. Completion of pumping arrangements 31<sup>st</sup> Oct.

Main boiler safety valves adjusted ✓  
Thrust and Material of Crank shafts Steel Identification Mark on D  
Material of Piston shafts O.H. Steel Identification Marks on D  
Material of Steam Pipes ✓  
Is an installation fitted for burning oil fuel ✓  
Have the requirements of Section 49 of the Rules been complied ✓  
Is this machinery duplicate of a previous case.

General Remarks (State quality of workmanship, opinion)

This twin set of oil engines has been examined in accordance with the Rules, and the workmanship of the engines were tried out under working conditions. These engines have now been shipped and to complete the survey it remains to test same under various working conditions in position and spare gear, as per Rules, to be supplied and placed on board.

(\*) No. 119 Shaft

LLOYD'S No. 95 RB. 3-17

No. 120 Shaft

LLOYD'S No. 328 WS. 5-5-17

The machinery has been installed on board to my satisfaction & tested under full load & found satisfactory. It is submitted that this vessel is eligible for THE RECORD. + LMC 10.18.

Oil Engines 25 C. SA. 8 Cy. 14 3/16 - 15

Skandia Pacific Oil Eng. Co. Oakland, Cal. (Annex)

J. Hugh Boyle

*W. Lawson*

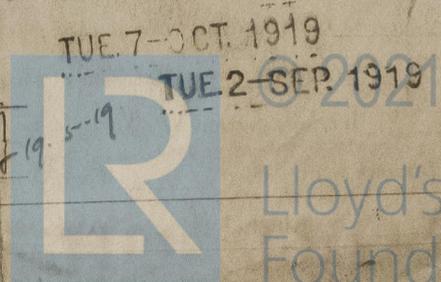
Engineer Surveyor to Lloyd's Register of British & Foreign Steamships

Table with columns for fee type (Entry Fee, Special, Donkey Boiler Fee, Travelling Expenses), amount (£), and date (Oct. 9 1917).

Committee's Minute

Assigned

+ dmc 10.18 subject



Lloyd's Register Foundation

Certificate (if required) to be sent to the Surveyors and requested not to write on or below the space for Committee's Minute.

ENCLOSURE