

# REPORT ON MACHINERY.

No. 634

TUE. 20 AUG. 1918

Received at London Office

Date of writing Report July 10 1918 <sup>REC'D NEW YORK July 24-1918.</sup> <sup>When handed in at Local Office</sup> July 16 1918 Port of Seattle Wash U.S.A.

No. in Survey held at Seattle Date, First Survey November 12, 1917 Last Survey June 26 1918  
(Number of Visits 45)

Reg. Book FIRST ENTRY On the New Steel Screw Steamer VITTORIO EMMANUELLE III Yard No. 95 Tons Gross 4856.6  
Net 3601.3

Master W.A. Carleton Built at Seattle By whom built Seattle Construction Dry Dock Co. When built 1918

Engines made at Seattle By whom made Seattle Construction Dry Dock Co. when made 1918

Boilers made at Seattle By whom made Seattle Construction Dry Dock Co. when made 1918

Registered Horse Power 2500 Owners U.S. Shipping Board & European Fleet Corp. Port belonging to Seattle

Nom. Horse Power as per Section 28 472 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 24"-40"-70" Length of Stroke 48 Revs. per minute 70 Dia. of Screw shaft as per rule 14.10 Material of Steel  
as fitted 14.25 screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight  
in the propeller boss 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  
between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive — If two  
liners are fitted, is the shaft lapped or protected between the liners — Length of stern bush 4'-9"

Dia. of Tunnel shaft as per rule 12.67 Dia. of Crank shaft journals as per rule 13.3 Dia. of Crank pin 13.375 Size of Crank webs HP 5 Dia. of thrust shaft under  
as fitted 12.68 as fitted 13.375 LP 9.2

collars 13.375 Dia. of screw 17'-0" Pitch of Screw 18'-0" No. of Blades 4 State whether moveable No Total surface 986

No. of Feed pumps 2 Diameter of ditto 7 Stroke 18 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 5 Stroke 20 Can one be overhauled while the other is at work yes

No. of Donkey Engines 2 Duplex Sizes of Pumps Ballast 10" x 12" x 12" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room 2-3 1/2" - 1-6" In Holds, &c. No. 1 Hold 2-3 1/2" No. 2 Hold 2-3 1/2"

No. 3 Hold 2-3 1/2" Shaft tunnel 1-3"

No. of Bilge Injections 1 sizes 10" Connected to condenser, etc. circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 6"

Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible None

Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Valves and Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Discharge Pipes above or below the deep water line Below

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes

What pipes are carried through the bunkers None How are they protected —

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes

Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Engine Room Platform at main deck

BOILERS, &c.—(Letter for record Nov York Dec 11 1916 Jan 19 1917) Manufacturers of Steel North Bros.

Total Heating Surface of Boilers 6831 Is Forced Draft fitted yes No. and Description of Boilers 3 Single ended Bertel Marine

Working Pressure 190 Tested by hydraulic pressure to 285 Date of test Feb 19 No. of Certificate —

Can each boiler be worked separately yes Area of fire grate in each boiler 56.376 No. and Description of Safety Valves to  
each boiler Two Spring loaded Area of each valve 9.62 Pressure to which they are adjusted 190 Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers 12" Mean dia. of boilers 13-10 1/2" Length 11-11 1/2" Material of shell plates Steel

Thickness 1 1/2" Range of tensile strength 60,000 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double lap

long. seams Triple butt Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 8 1/2" lap of plates width of butt straps 11 1/2 x 18 1/4

Per centages of strength of longitudinal joint rivets 82.46 Working pressure of shell by rules 198 Size of manhole in shell 12" x 16"  
plate 84.55

Size of compensating ring 30 x 32 No. and Description of Furnaces in each boiler 3 Morrison Material Steel Outside diameter 45 1/2"

Length of plain part top Thickness of plates bottom 7/16 Description of longitudinal joint Welded No. of strengthening rings —  
center sides

Working pressure of furnace by the rules 194 Combustion chamber plates: Material Steel Thickness: Sides 5/8 Back 5/8 Top 7/8 Bottom 7/8  
224 TOP Working pressure by rules 225 Material of Front plates at bottom Steel  
244 Sides 275 Back

Pitch of stays to ditto: Sides 6 x 6 Back 6 x 7 1/2 Top 7 1/2 x 7 1/2 If stays are fitted with nuts or riveted heads Nuts

Material of stays Steel Area at smallest part 1.26 Area supported by each stay 37.4 Working pressure by rules 250 End plates in steam space:

Material Steel Thickness 1 1/2" Pitch of stays 17 1/2 x 17 1/2 How are stays secured Double Nuts Working pressure by rules 199 Material of stays Steel

Area at smallest part 6.49 Area supported by each stay 300 Working pressure by rules 225 Material of Front plates at bottom Steel

Thickness 3/4" Material of Lower back plate Steel Thickness 5/8 + 5/8 Greatest pitch of stays 12 5/16 Working pressure of plate by rules 376  
tubes

Diameter of tubes 2 1/2" Pitch of tubes 3 5/8" Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 9"

Pitch across wide water spaces 14 1/16" Working pressures by rules 234 Girders to Chamber tops: Material Steel Depth and  
thickness of girder at centre 10 3/4" x 1 1/2" Length as per rule 34 Distance apart 5 3/4" Number and pitch of stays in each 3-7 1/2"

Working pressure by rules 235 Steam dome: description of joint to shell None % of strength of joint —

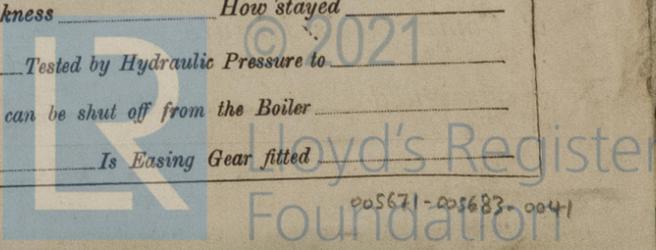
Diameter — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet holes —

Pitch of rivets — Working pressure of shell by rules — Crown plates — Thickness — How stayed —

SUPERHEATER. Type None Date of Approval of Plan — Tested by Hydraulic Pressure to —

Date of Test — Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler —

iameter of Safety Valve — Pressure to which each is adjusted — Is Easing Gear fitted —



005671-005683-0041

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied :-

- 2 Connecting rod top end bolts & nuts
- 2 Connecting rod bottom end bolts & nuts
- 2 Main bearing bolts
- 1 Set Coupling bolts for one coupling
- 1 Set Feed pump valves
- 1 Set Bilge pump valves
- 1 Set piston springs
- 1 Propeller (cast iron)
- 20 Condenser tubes and ferrules
- 6 Plain boiler tubes
- 2 Safety valve springs
- 100 Fire bars
- A quantity of assorted bolts, nuts and washers of various sizes

The foregoing is a correct description,

Seattle Construction & Dry Dock Company  
*Crowley* Manufacturer.

Dates of Survey while building

During progress of work in shops --	1917	Nov 12-22-28	Dec 1-4-10-24-29	Jan 3-10-23-24	Feb 6-15-19-23	March 4-8-18-20-27-30	April 5-10-16-19-26
		May 10-13-16-18-22-24	(33)				
	1918	April 5-16-26	May 10-16-18-22-24-27	June 4-11-17-19-25-26	(15)		
Total No. of visits		48		Is the approved plan of main boiler forwarded herewith <u>Copy</u>			

Dates of Examination of principal parts—Cylinders Nov 22 Dec 4-10 Slides Jan 3-10 Covers Nov 22 Dec 4-10 Pistons Dec 4-24 Rods Dec 10  
 Connecting rods Dec 24 Jan 8 Crank shaft Feb 6-20 Thrust shaft Feb 20 Tunnel shafts April 5-10 Screw shaft May 10-18 Propeller May 10-22  
 Stern tube May 10 Steam pipes tested June 19 Engine and boiler seatings June 17 Engines holding down bolts June 17  
 Completion of pumping arrangements June 17 Boilers fixed June 4 Engines tried under steam June 26  
 Completion of fitting sea connections May 22 Stern tube May 22 Screw shaft and propeller May 24  
 Main boiler safety valves adjusted June 26 Thickness of adjusting washers P  $\frac{1}{16}$  -  $\frac{17}{32}$  C  $\frac{49}{64}$   $\frac{45}{64}$  S  $\frac{21}{32}$  -  $\frac{43}{64}$   
 Material of Crank shaft Steel Identification Mark on Do. 30-11-1774 Material of Thrust shaft Steel Identification Mark on Do. 15-1-18 TM  
 Material of Tunnel shafts Steel Identification Marks on Do. 1387-15-1-18 TM Material of Screw shafts Steel Identification Marks on Do. 10-12-17 TM  
 Material of Steam Pipes Steel Test pressure 570

Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case yes If so, state name of vessel S.S. SUTHERLAND. S.S. BREHENTON

General Remarks (State quality of workmanship, opinions as to class, &c. The Engines and Boilers have been built and installed under special survey and in accordance with the approved plans, together with Auxiliaries, pipes, mountings, fittings and sea connections. The material and workmanship are both of good quality. On completion the machinery tried under steam and found satisfactory. The Machinery eligible, in my opinion, to have the record of +LMC 6.18 made in the Register Book in the case of this vessel.

It is submitted that this vessel is eligible for THE RECORD. +LMC 6.18 F.D.

*J. S. 18*  
*23-8-18*  
*ARRR*

The amount of Entry Fee ... \$ 73 : 05 :  
 Special ... \$ 218 : 00 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) \$ 65 : 00 :

When applied for, July 13 1918  
 When received, Aug 9 1918

*James Fowler*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York JUL 30 1918  
Assigned +LMC 6.18

MACHINERY CERTIFICATE WRITTEN 20-8-18



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Lloyd's Register Foundation

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

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