

REPORT ON MACHINERY.

No. 645

Received at London Office

Date of writing Report Sept 27 1918 Oct 9 1918 When handed in at Local Office Oct 2 1918 Port of Seattle Wash U.S.A.
 No. in Survey held at Seattle & Tacoma Date, First Survey April 20th Last Survey Sept. 7th 1918
 Reg. Book. First Entry on the New Steel Screw Steamer "ANACORTES" (Builder's No. 101) Tons Gross 4829 Net 3625
 Master B Law Built at Tacoma By whom built Jodd Dry Dock & Construction Corp. 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 2300 Owners US Shipping Board & Emergency Fleet Corp. part belonging to Tacoma
 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 14-10 as per rule 14-28 as fitted 14-32 Material of Steel
 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 57"
 Dia. of Tunnel shaft 12-6 1/2 as per rule 12-6 1/2 as fitted 12-6 1/2 Dia. of Crank shaft journals 13-30 as per rule 13-30 as fitted 13-30 Dia. of Crank pin 13-3 1/2 Size of Crank webs HP 8" 1P 9 3/4 2P 10 3/8 Dia. of thrust shaft under collars 13-3 1/2 Dia. of screw 17-6 Pitch of Screw 15-0 No. of Blades 4 State whether movable No Total surface 85-6
 No. of Feed pumps 2 Diameter of ditto 12 x 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 Fire General Service 10 x 8 1/2 x 12 No. and size of Suctions connected to both Bilge and Donkey pumps Ballast 10 x 12 x 12
 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" No 4 Hold 2-3 1/2" No 5 Hold 2-3 1/2" Shaft Tunnel 1-3"
 No. of Bilge Injections 1 sizes 10 Connected to condenser 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 Above Main Deck

BOILERS, &c.—(Letter for record July 27 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 Scotch Marine
 Working Pressure 190 Tested by hydraulic pressure to 285 Date of test May 28 No. of Certificate —
 Can each boiler be worked separately yes Area of fire grate in each boiler 56-37 No. and Description of Safety Valves to each boiler 2 Only spring loaded Area of each valve 7-62 Pressure to which they are adjusted 190 Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers on woodwork 12 Mean dia. of boilers 13-10 7/16 Length 11-11 7/16 Material of shell plates Steel
 Thickness 1 7/16 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 3/8 Pitch of rivets 9 1/2 Imp. of plates width of butt straps 14" and 20 1/2"
 Per centages of strength of longitudinal joint 84 1/2 rivets 85 plate 85 Working pressure of shell by rules 198 Size of manhole in shell After Head 12" x 16"
 Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Marine Material Steel Outside diameter 45 1/8
 Length of plain part top bottom Thickness of plates crown 9 1/16 bottom Description of longitudinal joint Welded No. of strengthening rings —
 Working pressure of furnace by the rules 195 Combustion chamber plates: Material Steel Thickness: Sides 5/8 Back 5/8 Top 4/16 Bottom 2 7/8
 Pitch of stays to ditto: Sides 6 x 6 Back 6 x 6 Top 7 1/2 x 10 If stays are fitted with nuts or riveted heads Other Riveted Working pressure by rules Top 209 Sides 277 Back 240 Bottom 260
 Material of stays Steel Area at smallest part 1-26 Area supported by each stay 41-0 Working pressure by rules 240 End plates in steam space: Material Steel Thickness 1 7/32 Pitch of stays 17 1/2 How are stays secured Double Nuts Working pressure by rules 195-5 Material of stays Steel
 Area at smallest part 6-49 Area supported by each stay 306-25 Working pressure by rules 292 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 6 x 12 7/16 Working pressure of plate by rules 323
 Diameter of tubes 2 1/2 Pitch of tubes 3 7/8 Material of tube plates Steel Thickness: Front 3/4 Back 3/4 Mean pitch of stays 7 1/4 x 7 1/4
 Pitch across wide water spaces 14 1/16 Working pressures by rules 328 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 10 3/4 x 17 1/2 Length as per rule 34 Distance apart 7 1/2 - 8 3/4 Number and pitch of stays in each 3 - 7 1/2"
 Working pressure by rules 209 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 —Diameter of Safety Valve — Pressure to which each is adjusted — Is Easing Gear fitted —

W1131-0031

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If so, is a report now forwarded?

12 Condenser tubes and ferrules

- ARE GEAR. State the articles supplied.
- 2 Connecting rod top end bolts & nuts
 - 2 " " Bottom " " "
 - 2 Main bearing bolts
 - 1 Set Coupling bolts for one coupling
 - 1 " Feed pump valves & discs
 - 1 " Bilge pump valves
 - 1 " Piston springs
 - 1 " Piston rings for H.P. piston.
 - 1 " Crosshead bracers
 - 1 " Crank pin bracers
 - 1 Eccentric strap complete
 - 1 Link block

- 12 Condenser tubes and ferrules
1 Cast iron propeller
6 Plain boiler tubes
6 Safety valve springs
100 Fire bars.
A quantity of assorted bolts, nuts and iron
of various sizes
A quantity of spare parts for auxiliaries

Todd Dry Dock and Construction Corporation

J. A. Eves, Mgr. **Manufacturer.**

Dates of Survey while building	{	During progress of work in shops --	April 20-26 May 1-7-13-16-18-22-28 June 4-8-13-21-24-29 July 3-5	(17)
		During erection on board vessel --	June 15-21-29 July 3-11-17-19-31 Aug. 3-8-14-26-29 Sep. 3-7	(15)
		Total No. of visits	32 29.	Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders ^{HP May 13} _{LP June 4} Slides ^{HP May 13} _{LP June 4} June 24-29 Covers ^{HP May 13} _{LP June 4} Pistons June 4-29 Rods May 18-29
 Connecting rods May 18-28 Crank shaft June 4 July 5 Thrust shaft June 8 July 3-31 Tunnel shafts June 21-29 July 31 Screw shaft June 24 July 3-31 Propeller June 2 July 3
 Stern tube June 8 July 3 Steam pipes tested August 3 Engine and boiler seatings July 3 Engines holding down bolts July 31
 Completion of pumping arrangements July 3 Boilers fixed August 3 Engines tried under steam Sept 3
 Completion of fitting sea connections July 3 Stern tube July 3 Screw shaft and propeller July 3
 Main boiler safety valves adjusted August 26 Thickness of adjusting washers $P \frac{35}{64} - \frac{9}{16} \cdot C \frac{25}{64} - \frac{39}{64} \cdot S \frac{29}{64} - \frac{17}{32}$
 Material of Crank shaft ^{LL070's} _{No. 18} Identification Mark on Do. ^{5-7-13 TF} ₂₈₅₀₋₃₀₋₁₁₋₁₇₀₄ Material of Thrust shaft Steel Identification Mark on Do. ^{LL070's} ₁₅₀₀
 Material of Tunnel shafts ^{LL070's} ₂₈₅₀₋₃₀₋₁₁₋₁₇₀₄ Steel Identification Marks on Do. ^{1331-5-4-15 TH} ₂₈₅₀₋₃₀₋₁₁₋₁₇₀₄ Material of Screw shafts Steel Identification Marks on Do. ^{LL070's} ₁₅₀₀
 Material of Steam Pipes Steel ✓ Test pressure 570 lbs ✓
 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. "CHEBAULIP"

Is this machinery duplicate of a previous case? *Yes*

General Remarks (State quality of workmanship, opinions as to class, &c. *The Engines and Boilers built and*

General Remarks (State quality of workmanship, etc.)
 installed under special survey, in accordance with the approved plans, together with
 auxiliaries, shafting, pipes, mountings, fittings and sea connections.
 On completion the

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 9.18** made in the Register Book in the case of this vessel.

It is submitted that
this vessel is eligible for
THE BLOOD. + LMC 9.18 F.D.

The amount of Entry Fee	...	15	:	:	When applied for,
Special	... <i>20</i>	218	:	:	<i>Sept 26</i> 1918
Donkey Boiler Fee	... £	:	:	:	When received,
<i>and other</i> Travelling Expenses (if any)		101.50	:	:	<i>Oct 11</i> 1918

Committee's Minute

Assigned

+ Lmc 9.18

MACHINERY CERTIFICATE
WRITTEN 4-11-18

James Fowler
Engineer Surveyor to Lloyd's Register of Shipping

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