

REPORT ON MACHINERY.

Received at London Office

REC'D NEW YORK FEB 5 - 1919

Date of writing Report Nov. 4 1918 When handed in at Local Office 1918 Port of SAN FRANCISCO, CALIFORNIA

No. in Survey held at Oakland, California Date, First Survey Aug. 15 - '18 Last Survey Oct. 2 1918
Reg. Book. on the Twin Set Diesel Oil Engines #3498 - 3499 (Number of Visits 6)

Master Van-Dongenbroeck Built at North Vancouver By whom built Lyalls Shipbuilding Co Tons Gross 1464.68
Engines made at Oakland, California By whom made Atlas Imperial Engine Company when made 1918 Net 1208.52
Boilers made at Minneapolis, Mass. By whom made Dominion Bridge Co when made 1918

Registered Horse Power 175 each Owners Societe D'Armevent, Van Hemebyck Port belonging to Vancouver B.C.
Nom. Horse Power as per Section 28 36.17 each Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Is the screw shaft fitted with a continuous liner the whole length of the stern tube Is the after end of the liner made water tight
in the propeller boss If the liner is in more than one length are the joints burned 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

Dia. of Tunnel shaft as per rule 6.57" Dia. of Crank shaft journals as per rule 6.625" Dia. of Crank pin 6.625" Size of Crank webs 8.5" x 3.75" Dia. of thrust shaft under

collars 6.5" Dia. of screw Pitch of Screw No. of Blades State whether moveable Total surface Yes Bilge pump connected to independent 16 BHP distillate eng.

No. of Bilge pumps 4 Diameter of ditto 3" Stroke 4" Can one be overhauled while the other is at work Yes
No. of Donkey Engines 2 Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room In Holds, &c.

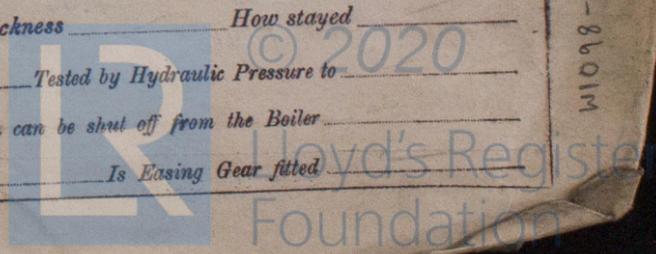
No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size
Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible
Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
What pipes are carried through the bunkers How are they protected
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges
Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &c. — (Letter for record ✓) Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers 1 - Water Tube
Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length 180" Material of shell plates
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
Per centages of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell
Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
Length of plain part Thickness of plates Description of longitudinal joint No. of strengthening rings
Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules End plates in steam space:
Material of stays Area at smallest part Area supported by each stay Working pressure by rules Material of stays
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom
Area at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each % of strength of joint
Working pressure by rules Steam dome: description of joint to shell Diam. of rivet holes
Diameter Thickness of shell plates Material Description of longitudinal joint Thickness How stayed
Pitch of rivets Working pressure of shell by rules Crown plates Tested by Hydraulic Pressure to

SUPERHEATER. Type Date of Approval of Plan

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



W1098-0253

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

ATLAS IMPERIAL ENGINE CO.

A. Warinskjold. Manufacturer.

Dates of Survey while building: During progress of work in shops - August 15-27, Sept. 4-13-28, Oct. 2. During erection on board vessel - Total No. of visits 6

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts - Cylinders Sept. 13 Slides Covers Sept. 28 Pistons Sept. 13 Rods

Connecting rods Sept. 28 Crank shaft Aug. 27 Thrust shaft Sept. 28 Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam power Oct. 2, 1918

Completion of fitting sea connections Stern tube Screw shaft and propeller

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft Steel Identification Mark on Do. Material of Thrust shaft steel Identification Mark on Do.

Material of Compressor Tunnel shafts Steel Identification Marks on Do. Material of Screw shafts steel Identification Marks on Do.

Material of Steam Pipes 2100# Hydrostatic Test pressure applied to air and spray bottles.

Is an installation fitted for burning oil fuel 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

This twin set of oil engines and Aux. 16 H.P. distillate engine with pumps, have been built under special survey of materials tested in accordance with the Rules, and the workmanship was found good throughout. On completion Eng. # 3498 (only) and Aux. distillate engine were tried out under working conditions on the test stand and found satisfactory.

These engines have now been shipped to the Lyall Shipbuilding Co., Vancouver, B.C. for installation in the vessel 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.

For identification the shafts were marked as follows:

Engine No. 3498 Engine No. 3499

Lloyd's Crank No. 672 Thrust No. 631 Comp. No. 661 Crank No. 648 Thrust No. 631 AVL 16-8-18 AVL 27-4-18 AVL 19-7-18 AVL 6-7-18 AVL 27-4-18

Aux. Engine Crank Lloyd's No. 678 Comp. No. 661 AVL 30-7-18 AVL 19-7-18

The amount of Entry Fee \$ 10.00 Special \$ 75.00 Donkey Boiler Fee £ Travelling Expenses (if any) £ Forgings \$ 70.00

When applied for, Nov 29 1918 When received, 10/16 1919

W. Lawson Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

