

# REPORT ON MACHINERY.

No. 229

Received at London Office

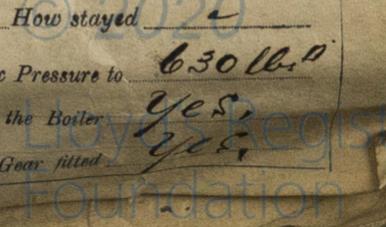
Date of writing Report April 11 1919 When handed in at Local Office April 11 1919 Port of Vancouver, B.C.  
 Date, First Survey 3/12/18, Last Survey April 10 1919  
 Survey held at Vancouver, B.C. (Number of Visits 17)  
 on the Single Screw Steamship "War Convoy" Tons { Gross 5755.04  
 Net 4173.41  
 Master D. Giffies Built at Vancouver, B.C. By whom built J. Coughlan & Sons, When built 1919  
 Engines made at Spokane, Wash. U.S.A. By whom made The Hallidie Company, when made 1918,  
 Boilers made at Vancouver, B.C. By whom made Vulcan Iron Works, Ltd. when made 1919  
 Registered Horse Power 2500 Owners Imperial Merantions Board Port belonging to London  
 Net Horse Power as per Section 28 564 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

DESCRIPTION OF ENGINES Parsons Cross Compound Double Reduction Geared Turbines No. of Cylinders 20 as per rule 14" Material of Steel  
 Length of Stroke 90 Revs. per minute 90 Dia. of Screw shaft 14" as fitted 14" screw shaft)  
 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  
 the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Light Fit If two  
 are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 4.2"  
 Tunnel shaft as per rule 12.5" Dia. of Crank shaft journals 13.2" as fitted 13.2" Size of Crank webs Yes Dia. of thrust shaft under  
 Dia. of screw 17.0" Pitch of Screw 13.11" No. of Blades 4 State whether mocenble Yes Total surface 81.59 sq. ft.  
 Feed pumps 2 off. Diameter of ditto 8" Stroke 16" Can one be overhauled while the other is at work Yes  
 Bilge pumps 2 off. Diameter of ditto 8.2" Stroke 12" Can one be overhauled while the other is at work Yes  
 Donkey Engines one Sizes of Pumps 12 x 12 x 12" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Holds, &c. Two in each hold 3.5" diam  
 Engine Room 4 off. 3.5" diam.  
 In all, Yes

MANUFACTURERS OF STEEL Illinois Steel Co.  
 Heating Surface of Boilers 8008.5 Is Forced Draft fitted Yes No. and Description of Boilers 3 Single Ended Scotch  
 Working Pressure 190 lb. Tested by hydraulic pressure to 300 lb. Date of test Dec 19/18, No. of Certificate 13  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 63.59 sq. feet No. and Description of Safety Valves to  
 boiler Two of Marine Area of each valve 9.06 Pressure to which they are adjusted 190 lb. Are they fitted with easing gear Yes  
 Least distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 14.9 1/8" Length 11.5 1/2" Material of shell plates Steel  
 Thickness 1 1/16" Range of tensile strength 65,000 Are the shell plates welded or flanged neither Descrip. of riveting: cir. seams R.R. Lap  
 seams Double Butt Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 4.30" Lap of plates or width of butt straps 22 1/2 x 14 1/2"  
 Percentages of strength of longitudinal joint 94.5% Working pressure of shell by rules 208.9 Size of manhole in 12 x 16"  
 of compensating ring Yes No. and Description of Furnaces in each boiler 3 Morrison Material Steel Outside diameter 48 3/16"  
 Thickness of plain part 8 1/4" Thickness of plates 19/32" Description of longitudinal joint Yes No. of strengthening rings Yes  
 Working pressure of furnace by the rules 195.9 Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 7/8"  
 No. of stays to ditto: Sides 10 1/32" Back 7 3/8" Top 7 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 194  
 Material of stays Steel Area at smallest part 2.04 Area supported by each stay 4.9 Working pressure by rules 253, End plates in steam space:  
 Material Steel Thickness 1 1/16" Pitch of stays 16 1/4" How are stays secured Nuts Working pressure by rules 193, Material of stays Steel  
 Area at smallest part 4.9 Area supported by each stay 26.4 Working pressure by rules 193, Material of Front plates at bottom Steel  
 Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 7 1/32" Working pressure of plate by rules 212,  
 Diameter of tubes 3.00" Pitch of tubes 4.8 x 4" Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 7 1/32"  
 Working pressure across wide water spaces 13" Working pressures by rules 204 lb. Girders to Chamber tops: Material Steel Depth and  
 thickness of girder at centre 10 x 3/4" Length as per rule 3'-0" Distance apart 7 1/2" Number and pitch of stays in each 30 off. 7 1/2" Pitch  
 Working pressure by rules 236 Steam dome: description of joint to shell Yes % of strength of joint Yes  
 Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet holes Yes  
 Working pressure of shell by rules Yes Crown plates Yes Thickness Yes How stayed Yes

SUPERHEATER. Type Foster Date of Approval of Plan Yes Tested by Hydraulic Pressure to 630 lb.  
 Date of Test 12-2-19 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes  
 Number of Safety Valve 1 1/2 in each Section Pressure to which each is adjusted 210 lb. Is Easing Gear fitted Yes

210-0042



IS A DONKEY BOILER FITTED? **Y0**

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - 1 Thrust Bearing complete, 2 Slides & Vents for Rotor Bearing, 2 Vents for Main Turbine, 2 Slides & Vents for Main Gear Bearing, 2 Slides & Vents for Pinion Bearing, 1 set Condenser, 1 set of Bearing Bushes for one Pinion, 1 set of Bearing Bushes for one Rotor Bearing, 1/2 set Packing Rotor Glands, 1/2 set Pads, Kingsbury, 1 set of Feed Pump Valves, 1 set of Bilge Pump Valves, 1 Bucket & Rod for Lubricating oil, Assorted Bolts & nuts, Steel Bars & Plates, Spare Propeller Blade, Spare Tail Shaft, Spare Boiler Tube, Set Spare Check Valves, Spare Safety Valve Springs, Spare Superheater Coils, Spare Condenser Tubes & ferrules.

The foregoing is a correct description,  
*J. Longfellow & Sons*  
*by J. Longfellow Partner* Manufacturer.

Dates of Survey while building: 3/12/18, 16/12/18, 19/12/18, 2/1/19, 22/1/19, 19/2/19, 2/3/19, 8/3/19, 10/3/19, 12/3/19, 13/3/19, 17/3/19, 20/3/19, 25/3/19, 26/3/19. Total No. of visits: 12 visits. Is the approved plan of main boiler forwarded herewith?

Dates of Examination of principal parts: Cylinders, Slides, Covers, Pistons, Rods, Connecting rods, Crank shaft, Thrust shaft, 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, Completion of fitting sea connections, Stern tube, Screw shaft and propeller, Main boiler safety valves adjusted, Thickness of adjusting washers, Material of Thrust shaft, Material of Tunnel shafts, Material of Screw shafts, Material of Steam Pipes, Test pressure, 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? **Y0** If so, state name of vessel:

General Remarks (State quality of workmanship, opinions as to class, &c.) *The Engines and Boilers of this Vessel have been built and installed under Special Survey, and in accordance with approved Plans, together with Auxiliaries, Piping, Mountings, Fittings & Sea Connections etc. The Material and Workmanship are both of Good Quality. On completion of machinery Installation the Vessel was tried under Full Steam at Sea and found Satisfactory. Safety Valves were floated independently. Tail Shaft is a continuous Liner. The machinery & Boilers are eligible in my opinion to have the Rec L.M.C. 4. 19. made in the Register Book in the case of this vessel.*

Please refer to Seattle Report **Y0 482**,  
Please refer to Pittsburgh Report **Y0 55**,  
It is submitted that this vessel is eligible for THE RECORD, + L.M.C. 4. 19. 2 Steam Turbines geared to 1 Screw Shaft.

The amount of Entry Fee ... £ 76.00  
Special ... £ 76.00  
Donkey Boiler Fee ... £ 76.00  
Travelling Expenses (if any) £ ...  
When applied for, April 14 1919  
When received, 20/9/19  
FRI. 23 MAY. 1919  
Assigned  
MACHINERY CERTIFICATE WRITTEN  
GEO. P. McEOWN  
Engineer Surveyor to Lloyd's Register of Shipping  
FRI. 25 JUL. 1919  
Lloyd's Register Foundation