

REPORT ON MACHINERY.

No. 17520

Survey held at Sept. 11th 1919 When held in at Local Office Sept. 23rd 1919 Port of New York
 Date, First Survey 20 Mar 18 Last Survey 28 Aug 1919
 on the Machinery for the U.S. Revenue
 Built at Elizabeth N.J. By whom built Bethlehem S.B. Corp. (More Plant)
 made at Elizabeth N.J. By whom made Bethlehem S.B. Corp. (More Plant) when made 1919-8
 made at Wilmington, Del. By whom made Bethlehem S.B. Corp. (Harran Plant) when made 1919-8
 ed Horse Power 381.7 Owners Munis States Shipping Board Port belonging to Elizabeth N.J.
 orse Power as per Section 28 381.7 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 ES, &c.—Description of Engines Triple Expansion, Condensing No. of Cylinders 3 No. of Cranks 3
 Cylinders 22 1/2 - 39 - 63 Length of Stroke 40 Revs. per minute 75 Dia. of Screw shaft 13.34 Material of Steel
 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
 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
 the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If two
 re fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 4-6
 Tunnel shaft 12.19 Dia. of Crank shaft journals 12.8 Dia. of Crank pin 13 Size of Crank webs 9x25 Dia. of thrust shaft under
13 Dia. of screw 15-9 Pitch of Screw 16-3 No. of Blades 4 State whether moveable Yes Total surface 76.96
 Feed pumps 2 Diameter of ditto 10x7 Stroke 24 Can one be overhauled while the other is at work Yes
 Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 18 Can one be overhauled while the other is at work Yes
 Donkey Engines 3 Sizes of Pumps 1-12x6 1/2 x 12 No. and size of Suctions connected to both Bilge and Donkey pumps
 ne Room 4-3 dia 1-10x12x12 In Holds, &c. Fore Hold 2-3 Fore pump room 1-3
2-3 in No. 1 hold 1-6x5 1/4 x 6 After pump room 2-2 Fore peak 1-3
 lge Injections 8 Connected to circulating pump Is a separate Donkey Suction fitted in Engine room & size Yes 3"
 be 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 Yes
 connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
 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
 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
 pipes are carried through the bunkers None How are they protected Yes
 Pipes, 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
 crew Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes
 RS, &c.—(Letter for record S) Manufacturers of Steel North Bros
 Heating Surface of Boilers 5510 Is Forced Draft fitted Yes No. and Description of Boilers 2 Single-ended
 g Pressure 190 Tested by hydraulic pressure to 285 lbs Date of test 23 Mar 19 No. of Certificate 187
 h boiler be worked separately Yes Area of fire grate in each boiler 78 No. and Description of Safety Valves to
 ter Turn 3 1/2 dia Area of each valve 9.62 Pressure to which they are adjusted 195 lbs Are they fitted with easing gear Yes
 distance between boilers or uptakes and bunkers or woodwork See Mean dia. of boilers See Length See Material of shell plates See
 Range of tensile strength Report Are the shell plates welded or flanged Yes Descrip. of riveting: air. seams See
 Diameter of rivet holes in long. seams See Pitch of rivets See Lap of plates or width of butt straps See
 Working pressure of shell by rules Attached Size of manhole in shell See
 No. and Description of Furnaces in each boiler See Material See Outside diameter See
 Thickness of plates See Description of longitudinal joint See No. of strengthening rings See
 Combustion chamber plates: Material See Thickness: Sides See Back See Top See Bottom See
 If stays are fitted with nuts or riveted heads See Working pressure by rules See
 Area at smallest part See Area supported by each stay See Working pressure by rules See End plates in steam space: See
 Thickness See Pitch of stays See How are stays secured See Working pressure by rules See Material of stays See
 Area supported by each stay See Working pressure by rules See Material of Front plates at bottom See
 Thickness See Greatest pitch of stays See Working pressure of plate by rules See
 Pitch of tubes See Material of tube plates See Thickness: Front See Back See Mean pitch of stays See
 Working pressures by rules See Girders to Chamber tops: Material See Depth and See
 Length as per rule See Distance apart See Number and pitch of stays in each See
 Steam dome: description of joint to shell See % of strength of joint See
 Material See Description of longitudinal joint See Diam. of rivet holes See
 Working pressure of shell by rules See Crown plates See Thickness See How stayed See
 Date of Approval of Plan See Tested by Hydraulic Pressure to See
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler See
 Pressure to which each is adjusted See Is Easing Gear fitted See

009376-009386-0014

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *✓*

SPARE GEAR.

State the articles supplied:—

2 Top end bolts & nuts: 2 bottom end bolts & nuts: 2 main bolts & nuts: 1 set of coupling bolts & nuts: a quantity of smaller bolts & nuts: 1 set of main & bar various sizes: 1/3" crank shaft: one propeller shaft: 2 propeller blades (cast iron) 100 condenser 200 condenser screws: 1 pair of crank pin braces: 1 pair of top end braces: 2 slide valve 2 eccentric straps complete: 2 boiler tubes: 1 set of valves for air pump: 2 sets of rings for H.P. 2 oil burners complete: 8 burner tips: 2 opening & closing escape valves: 12 junk ring steam 6 blind flange for cylinder covers, valve covers, condenser doors, air pump & oil pump covers. Crank pinion & connecting rod complete: for condenser pump: feed pump valve chest & 1 set of valves & 12 pump pins

The foregoing is a correct description.

Arthur L. Busch

Wethersham Shipbuilding Co. Moore Plant.
Manager

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1918. Mar 20 May 3 8 17 20 Jun 4 17 12 13 17 26 Jul 28 10 17 26 31 Aug 7
During erection on board vessel -- Sep 4 12 13 Oct 4 9 19 19 Jan 16 Feb 10 Mar 10 Apr 2 16 25 30 Aug 28
Total No. of visits 31

Is the approved plan of main boiler forwarded herewith *✓*

Dates of Examination of principal parts—Cylinders 17/7/18 Slides 31/7/18 " " " donkey " 12/9/18 Pistons 10/2/19 Rods 10/2/19
Connecting rods 3/7/18 Crank shaft 4/9/18 Thrust shaft 9/7/18 Tunnel shafts 16/1/19 Screw shaft 16/1/19 Propeller 13/1/19
Stern tube 7/6/18 Steam pipes tested 25/7/19 Engine and boiler seatings 2/7/19 Engines holding down bolts 16/7/19
Completion of pumping arrangements 25/7/19 Boilers fixed 2/7/19 Engines tried under steam 25/8/19
Completion of fitting sea connections 26/5/19 Stern tube 26/5/19 Screw shaft and propeller 26/5/19
Main boiler safety valves adjusted 25/8/19 Thickness of adjusting washers Fitted with lock-nuts.
Material of Crank shaft *Steel* Identification Mark on Do. 362 Material of Thrust shaft *Steel* Identification Mark on Do. 317
Material of Tunnel shafts *Steel* Identification Marks on Do. *✓* Material of Screw shafts *Steel* Identification Marks on Do. 34
Material of Steam Pipes *Lap welded Steel* Test pressure 57 lbs.
Is an installation fitted for burning oil fuel *Yes* Is the flash point of the oil to be used over 150°F. *Yes*
Have the requirements of Section 49 of the Rules been complied with *Yes*
Is this machinery duplicate of a previous case *No* If so, state name of vessel *✓*

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

The Machinery and Boilers of this vessel have been constructed under Special Survey in accordance with the Rules and approved plans. The material and workmanship appear to be efficient. Machinery and Boilers have been efficiently fitted on board & secured. The case is respectfully submitted for the notation of L.M.C. 8-19 and fitted for oil fuel 8-19 F.P. above 150°F. and electric light in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 8.19. F.D.

Fitted for oil fuel 8.19. F.P. above 150°F.

The amount of Entry Fee ... \$ 15.00
Special ... \$ 195.25
Donkey Boiler Fee ... \$ 10.00
Travelling Expenses (if any) ... \$ 10.00
When applied for, 11 Oct 1919
When received, 25/10/19

Committee's Minute

Assigned

+ L.M.C. 8.19

H.D. Buchanan
Engineer Surveyor to Lloyd's Register of Shipping



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Lloyd's Register Foundation

Certificate (if required) to be sent to

Dates Survey while building

ENT

Sur

Tra

cla

Comm

Assig