

# REPORT ON MACHINERY.

No. 14883

of writing Report Mar 30 1918 When handed in at Local Office April 4 1918 Port of New York  
 in Survey held at Hooker's Head New York Date, First Survey 6 Oct 16 Last Survey 5 April 1918  
 on the Machinery of the Ss "MUSCATINE" (Number of Visits 12)

ster Built at Hooker's Head By whom built Standard S.B. Corp. Tons Gross 1918-3  
 Engines made at Hooker's Head By whom made Standard S.B. Corp. When built 1918-3  
 Meters made at Hooker's Head By whom made Standard S.B. Corp. when made 1918-3  
 Registered Horse Power 485 Owners U.S. Shipping Board Umpqua Flag Coast port belonging to New York  
 Net Horse Power as per Section 28 485 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion Surface Condensing of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 24-40-70 Length of Stroke 48 Revs. per minute 75 Dia. of Screw shaft 3.93 Material of Steel  
 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  
 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 Yes If two  
 liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 4-11/2  
 Dia. of Tunnel shaft 12.67 Dia. of Crank shaft journals 13.3 Dia. of Crank pin 13.3 Size of Crank webs 26x10.5 Dia. of thrust shaft under  
 collars 13.3 Dia. of screw 16-6 Pitch of Screw 17-4/2 No. of Blades 4 State whether moveable No Total surface 82  
 No. of Feed pumps 2 Diameter of ditto 4 Stroke 20 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 5 Sizes of Pumps 12x8x24 12x14x15 12x8x12 4 1/2 x 3 1/4 x 4 1/2 x 3 1/4 x 4 No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 2-3 1/2 In Hold, &c. No. 1. 2-3 1/2 No. 2. 2-3 1/2 No. 3. 2-3 1/2  
 No. of Bilge Injections 1 sizes 8 Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2  
 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 Yes  
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both  
 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 Yes  
 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 Yes  
 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 Blower top platform

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Central Iron & Steel Co. Harbeson, Pa.  
 Total Heating Surface of Boilers 728 Is Forced Draft fitted Yes No. and Description of Boilers 3 Single ended  
 Working Pressure 190 lbs. Tested by hydraulic pressure to 285 lbs. Date of test 12/11/17 No. of Certificate 29  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 62 No. and Description of Safety Valves 10  
 each boiler 2 Spring loaded Area of each valve 12.56 Pressure to which they are adjusted 190 lbs. Are they fitted with easing gear Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 6 1/2 air space Mean dia. of boilers 4-2 1/2 Length 12-0 Material of shell plates Steel  
 Thickness 1 1/4 Range of tensile strength 28/32 Tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R.L.A.P.  
 long. seams D.B.S.T.R. Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 8 1/2 Lap of plates or width of butt straps 23  
 Per centages of strength of longitudinal joint 103 Working pressure of shell by rules 204 lbs. Size of manhole in shell 16" x 12"  
 Size of compensating ring 38 x 34 x 1 1/4 No. and Description of Furnaces in each boiler 3 Motion Material Steel Outside diameter 46 3/4  
 Length of plain part top 7 1/2 bottom 7 1/2 Thickness of plates 7 1/2 Description of longitudinal joint Welder No. of strengthening rings 1  
 Working pressure of furnace by the rules 204 Combustion chamber plates: Material Steel Thickness: Sides 5/8 Back 5/8 Top 9/16 Bottom 7/8  
 Pitch of stays to ditto: Sides 8 x 7 Back 7 1/4 x 6 Top 7 1/2 x 7 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 204 lbs.  
 Material of stays Steel Area at smallest part 1.48 Area supported by each stay 46.5 Working pressure by rules 255 End plates in steam space:  
 Material Steel Thickness 1 1/16 Pitch of stays 14 x 14 How are stays secured D. Nuts Working pressure by rules 257 Material of stays Steel  
 Area at smallest part 5.93 Area supported by each stay 196 Working pressure by rules 316 Material of Front plates at bottom Steel  
 Thickness 3/4 Material of Lower back plate Steel Thickness 3/4 Greatest pitch of stays 13 1/8 Working pressure of plate by rules 352 lbs.  
 Diameter of tubes 3 Pitch of tubes 4 1/4 x 4 1/4 Material of tube plates Steel Thickness: Front 3/4 x 3/4 Back 3/4 Mean pitch of stays 8 1/4  
 Pitch across wide water spaces 14 Working pressures by rules 230 lbs. Girders to Chamber tops: Material Steel Depth and  
 thickness of girder at centre 10 x 1 1/2 Length as per rule 35 3/8 Distance apart 7 Number and pitch of stays in each 3-7 1/2  
 Working pressure by rules 231 Steam dome: description of joint to shell Not fitted % of strength of joint 100  
 Diameter 14 Thickness of shell plates 3/4 Material Steel Description of longitudinal joint Welder Diam. of rivet holes 1 1/2  
 Pitch of rivets 8 Working pressure of shell by rules 231 Crown plates 14 Thickness 3/4 How stayed Welder

SUPERHEATER. Type Horizontal Date of Approval of Plan 12/11/17 Tested by Hydraulic Pressure to 285 lbs.  
 Date of Test 12/11/17 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes  
 Diameter of Safety Valve 1 1/2 Pressure to which each is adjusted 285 lbs. Is Easing Gear fitted Yes

