

Mar 5 1920

Rpt. 4.

# REPORT ON MACHINERY

No. 1280  
TUE. APR. 6 1920

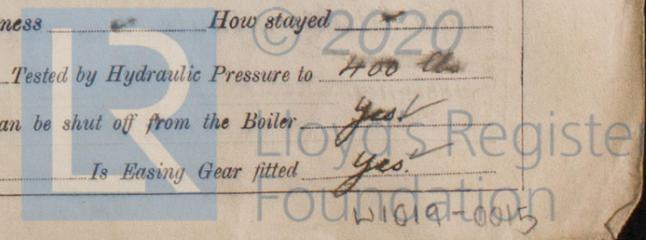
Received at London Office

Date of writing Report 26 Feb 1920 When handed in at Local Office 28 Feb 1920 Port of Boston  
 No. in Survey held at Bath, Me. Date, First Survey 16 Aug 1919 Last Survey 1920  
 Reg. Book. on the steel screw steamer **ROANOKE** (Number of Visits 1)  
 Master                      Built at Bath, Me. By whom built The Fenwick Steamship Co. Tons { Gross 6784  
 Engines made at Buffalo, N.Y. By whom made H. E. Hunt, Co. when made 1920 Net 5465  
 Boilers made at Bayonne, N.J. By whom made Babcock & Wilcox Co. when made 1920  
 Registered Horse Power                      Owners The Fenwick Co. Port belonging to                       
 Nom. Horse Power as per Section 28 556 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 26 1/2" - 44" - 74" Length of Stroke 51" Revs. per minute 75 Dia. of Screw shaft as per rule 15 1/2" Material of screw shaft 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 no 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 no If two  
 bearings are fitted, is the shaft lapped or protected between the liners no Length of stern bush 5-3 1/2"  
 Dia. of Tunnel shaft as per rule 14" Dia. of Crank shaft journals as per rule 14 1/2" Dia. of Crank pin 14 3/4" Size of Crank webs 23 x 10 Dia. of thrust shaft under  
 rollers 14 3/4" Dia. of screw 17-9" Pitch of Screw 17-6" No. of Blades 4 State whether moveable no Total surface 108 5/8  
 No. of Feed pumps 2 duplex Diameter of ditto 11 1/2" Stroke 26" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 2 Diameter of ditto 5 1/2" Stroke 24" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 2 duplex Sizes of Pumps                      No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room 4-3 1/2" x 1-4 1/2" In Holds, &c. Oil cargo pumping system  
 No. of Bilge Injections 1 sizes 10" Connected to                      circulating pump yes Is a separate Donkey Suction fitted in Engine room & size                       
 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                       
 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 Oil fuel suction How are they protected insulation, oil fuel  
 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 no tunnel Is it fitted with a watertight door no worked from                     

**BOILERS, &c.**—(Letter for record S) Manufacturers of Steel Lubens Iron & Steel Co. 3 W. T. B.  
 Total Heating Surface of Boilers 9969 sq ft Is Forced Draft fitted no No. and Description of Boilers 3 Watertube Babcock & Wilcox type  
 Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test Sept 1919 No. of Certificate 30  
 Can each boiler be worked separately yes Area of fire grate in each boiler 87.5 sq ft No. and Description of Safety Valves to  
 each boiler 2 spring loaded Area of each valve 9.62 sq in Pressure to which they are adjusted 200 lbs. Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork abt 2'0" Mean dia. of DRUM 42" Length 14-7 3/8" Material of shell plates steel  
 Thickness 9/16" Range of tensile strength 55/65,000 lbs. Are the shell plates welded or flanged no Descrip. of riveting: cir. seams S. R. Lap  
 Longitudinal seams D. R. D. B. S. Diameter of rivet holes in long. seams 29/32" Pitch of rivets 4 1/2" x 2 3/32" Lap of plates or width of butt straps 9 3/4" x 15"  
 Percentages of strength of longitudinal joint                      rivets 108 Working pressure of shell by rules 284 lbs. Size of manhole in shell Lead 15" x 11"  
 No. of compensating ring flanged ring 7/16" 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                       
 Thickness of stays to ditto: Sides                      Back                      Top                      If stays are fitted with nuts or riveted heads                      Working pressure by rules                       
 Material of stays                      Area at smallest part                      Area supported by each stay                      Working pressure by rules                      End plates in steam space:                       
 Material steel Thickness 19/32" Pitch of stays                      How are stays secured Dished ends 42" R Working pressure by rules 204 lbs Material of stays                       
 Area at smallest part                      Area supported by each stay                      Working pressure by rules                      Material of Front plates at bottom                       
 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                       
 Working pressure 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                       
 Working pressure by rules                      Steam dome: description of joint to shell                      % of strength of joint                       
 Diameter                      Thickness of shell plates                      Material                      Description of longitudinal joint                      Diam. of rivet holes                       
 No. of rivets                      Working pressure of shell by rules                      Crown plates                      Thickness                      How stayed                     

**SUPERHEATER.** Type Tube Date of Approval of Plan 29 May 1919 Tested by Hydraulic Pressure to 400 lbs  
 Date of Test 6 Sept 1919 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 200 lbs. Is Easing Gear fitted yes



IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 connecting rod top end bolts & nuts, 2 connecting rod bottom end bolts & nuts, 1 set coupling bolts, 2 main bearing bolts, 1 set feed & bilge pump valves, assorted nuts, bolts & iron. Piston rings for all cylinders, section of crank shaft, spare propeller, 1 pair crank pin bushes, 1 pair crosshead bushes, 1 link block, 2 eccentric straps, air pump rod, HP & MP valve spindle, spare check valves, cylinder cover studs, valve chest cover studs, pump ring bolts. Boiler tubes, condenser tubes, spare valves & parts for all pumps, Spare parts for B & W boilers & oil fuel fittings.

The foregoing is a correct description,

The Texas Steamship Co  
per Geo B Drake mgr

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1919 Aug 16, Sept 2, 6, 13, Oct 2, 7, Nov 6, 25, Dec 3, 5, 11, 29, 30. 1920 Jan 9, 10, 21, 22, Feb 2, 12, 13. Total No. of visits 20. Is the approved plan of main boiler forwarded herewith *no*

Dates of Examination of principal parts—Cylinders ✓ Slides ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓ Crank shaft ✓ Thrust shaft ✓ Tunnel shafts ✓ Screw shaft ✓ Propeller ✓ Stern tube 28 Nov 1919. Steam pipes tested 22/2/20 Engine and boiler seatings 6/12/19 Engines holding down bolts 29/12/19 Completion of pumping arrangements 12/2/20 Boilers fixed 12/1/20 Engines tried under steam 12/2/20 Completion of fitting sea connections 31/12/19 Stern tube 28/12/19 Screw shaft and propeller 5/12/19 Main boiler safety valves adjusted 2/2/20. Thickness of adjusting washers Locknuts fitted Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do. Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do. Material of Steam Pipes Steel ✓ Test pressure 600 lb ✓ 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 *yes* If so, state name of vessel *Argon, Boston report 1215.*

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

The machinery & boilers of this vessel have been built under Special Survey, as per Buffalo report 45 & New York report 17007 herewith. They have now been fitted on board under Special Survey in accordance with the Rules & approved plans & the workmanship & material are good. They have been satisfactorily tested under full power at sea & they are now in good & safe working condition & eligible in my opinion, to receive the notations + LMC 2.20 (in red) in the Register Book and 'FITTED FOR OIL FUEL 2.20 F.P. ABOVE 150°F', subject to the water tube boilers being annually surveyed.

It is submitted that this vessel is eligible for THE RECORD, + L.M.C. 2.20. F.D. Subject to the Water Tube Boilers being surveyed annually.

3 WATER TUBE BOILERS. FITTED FOR OIL FUEL 2.20 F.P. ABOVE 150°F.

The amount of Entry Fee ... £ \$ 15.00 : When applied for, Special ... £ 23.9.25 : 1st March 1920. Buffalo Foreign Monkey Boiler Fee ... £ 40.00 : When received, Travelling Expenses (if any) £ 47.00 : 11/2/20

Committee's Minute New York MAR - 9 1920

Assigned + LMC 2.20 subject

MASSIMO COSTI  
WRITTEN  
6.4.20



Rpt. 4.  
Date of writing  
No. in Su  
Reg. Book.  
on  
Master  
Engines mo  
Boilers ma  
Registered  
Nom. Horse  
ENGINES  
Dia. of Cyl  
Is the screw  
in the prop  
between the  
liners are fi  
Dia. of Tunne  
collars 14.7  
No. of Feed  
No. of Bilge  
No. of Donk  
In Engine  
No. of Bilge  
Are all the bil  
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Are they fixe  
Are they each  
What pipes  
Are all Pipe  
Are the Bilg  
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OILERS  
Total Heati  
Working Pr  
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