Rpt. 4.

REC'D NEW YORK OCT - 7 1921

REPORT ON MACHINERY.

No. 4243

MON. 31 OCT. 1921

Received at London Office

Date of writing Report 29th Sept. 1921 When handed in at Local Office 5th October 1921 Port of Philadelphia

No. in Reg. Book. Survey held at Chester Pa Date, First Survey 13-1-21 Last Survey 29 September 1921

on the New S.S. "Aguimex" (Number of Visits 48)

Master / Built at Chester Pa By whom built Sun Shipbuilding Co Tons Gross 8561.72 Net 5522. When built 1921

Engines made at Chester Pa By whom made Sun Shipbuilding Co when made 1921

Boilers made at Chester Pa By whom made Sun Shipbuilding Co when made 1921

Registered Horse Power Owners Atlantic Gulf & West Indies S.S. Line Port belonging to New York

Nom. Horse Power as per Section 28 819 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Quadruple Expansion No. of Cylinders 4 No. of Cranks 4

Dia. of Cylinders 26". 38¼. 56". 82" Length of Stroke 54 Revs. per minute 79 Dia. of Screw shaft as per rule 16.049 as fitted 16⅞ Material of screw shaft Steel

Is 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 in the propeller boss Yes 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 6.0

Dia. of Tunnel shaft as per rule 14.537 as fitted 15¾ Dia. of Crank shaft journals as per rule 15.26 as fitted 15¾ Dia. of Crank pin 16¼ Size of Crank web 2.2"×11¼ Dia. of thrust shaft under collars 15¾ Dia. of screw 19.2 Pitch of Screw 17.9 No. of Blades 4 State whether moveable Yes Total surface 181.7

No. of Feed pumps 2 Diameter of ditto over Stroke over Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto " Stroke " Can one be overhauled while the other is at work Yes

No. of Donkey Engines over Sizes of Pumps over No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Fireroom 4 @ 3½: 7 @ 3": 1 @ 5" In Holds, &c. Forehold. 2 @ 3" Fore pump room 1 @ 3½ Cargo pump room 2 @ 2½

No. of Bilge Injections 1 sizes 10" Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size Yes 3½"

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 Above

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 /

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 / Is it fitted with a watertight door / worked from /

BOILERS, &c.—(Letter for record Y) Manufacturers of Steel Lukens Steel & Iron Co

Total Heating Surface of Boilers 2264 Is Forced Draft fitted Yes No. and Description of Boilers 4 S.E. Scotch

Working Pressure 220 Tested by hydraulic pressure to 330 Date of test 25-2-21 No. of Certificate 574

Can each boiler be worked separately Yes Area of fire grate in each boiler 65.6 □' No. and Description of Safety Valves to each boiler 3½" Twin Area of each valve 9.62 □" Pressure to which they are adjusted 220 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 20" Mean dia. of boilers 15.11¾ Length 12.0 7/16 Material of shell plates Steel

Thickness 1¾ Range of tensile strength 60000 to 70000 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DRL long. seams TRDBS Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 9 15/16" Lap of plates or width of butt straps 25¾

Per centages of strength of longitudinal joint rivets 45.5% plate 83% Working pressure of shell by rules 236 Size of manhole in shell 12"×16"

Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Morison Material Steel Outside diameter 52 3/16"

Length of plain part top / bottom / Thickness of plates crown 23/32" bottom 23/32" Description of longitudinal joint Weld No. of strengthening rings /

Working pressure of furnace by the rules 229 Combustion chamber plates: Material Steel Thickness: Sides 11/16" Back ¾" Top 11/16" Bottom 1 1/16"

Pitch of stays to ditto: Sides 8⅞×6½ Back 8×8 Top 8⅞×8⅞ If stays are fitted with nuts or riveted heads Both Working pressure by rules 223

Material of stays W.I. Area at smallest part 1.997 Area supported by each stay 68.046 Working pressure by rules 220 End plates in steam space: Material Steel Thickness 1 3/16 Pitch of stays 16⅞×16 How are stays secured D Nuts Working pressure by rules 233 Material of stays Steel

Area at smallest part 7.0656 Area supported by each stay 270 □" Working pressure by rules 272 Material of Front plates at bottom Steel

Thickness 1 1/16 Material of Lower back plate Steel Thickness 1 1/32 Greatest pitch of stays 13" Working pressure of plate by rules 249

Diameter of tubes 2½" Pitch of tubes 3¾×3½ Material of tube plates Steel Thickness: Front 1/32 Back 27/32 Mean pitch of stays 9"

Pitch across wide water spaces 13" Working pressures by rules 225 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 11×2 Length as per rule 3'.4" Distance apart 8⅜ Number and pitch of stays in each 4 @ 8⅜

Working pressure by rules 268 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 /

Pitch of rivets / Working pressure of shell by rules / Crown plates / Thickness / How stayed /

SUPERHEATER. Type / Date of Approval of Plan / Tested by Hydraulic Pressure to /

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 /

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002051-002061-0099

S.S. "Aquitania" Order No. 12.15

IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes

SPARE GEAR. State the articles supplied:— 2 Connecting rod top-end bolts & nuts: 2 bottom-end bolts & nuts: 2 Main bearing bolts: 1 set of coupling bolts: 1 set of feed & bilge pump valves: 1 Propeller shaft: 1 set of top-end brasses: 1 set of bottom-end brasses: 1 Propeller blade: 6 follower bolts: 1 set of L & C. rings for each piston: 1 Relief spring for each one fitted: 50 main condenser tubes: 12 Cylinder studs: 100 brass ferrules: a quantity of assorted bolts & nuts of various sizes plate of iron & mild steel of various sizes

The foregoing is a correct description,

A. A. Howitt

Manufacturer.

SUN SHIPBUILDING COMPANY

Dates of Survey while building — During progress of work in shops: 1921. Jan 15. Feb. 2.7.15.17.24.28. Mch 3.10.24.30 Apl. 2.7.12.20.25.28.29. May. 4.6.11.12.17.20.
During erection on board vessel: 23.27. June. 3.14.17.20.22.27.28 July 11. Aug 1.5.9.12.15.18.22.24.31. Sep. 6.22.27.28.29.
Total No. of visits 48

Is the approved plan of main boiler forwarded herewith ✓
" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 11.5.21 Slides 23.5.21 Covers 11.5.21 Pistons 23.5.21 Rods 23.5.21
Connecting rods 12.4.21 Crank shaft 14.3.21 Thrust shaft 14.6.21 Tunnel shafts 14.6.21 Screw shaft 17.6.21 Propeller 17.6.21
Stern tube 11.7.21 Steam pipes tested 28.4.21 Engine and boiler seatings 11.7.21 Engines holding down bolts 22.8.21
Completion of pumping arrangements 22.9.21 Boilers fixed 24.8.21 Engines tried under steam 22.9.21
Completion of fitting sea connections 1.8.21 Stern tube 1.8.21 Screw shaft and propeller 1.8.21
Main boiler safety valves adjusted 22.9.21 Thickness of adjusting washers Lock nuts
Material of Crank shaft Steel Identification Mark on Do. F.W.T. McN. J.F. Material of Thrust shaft Steel Identification Mark on Do. J.F.
Material of Tunnel shafts Steel Identification Marks on Do. F.W.T. Material of Screw shafts Steel Identification Marks on Do. McN.
Material of Steam Pipes Steel Test pressure 700 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 Yes If so, state name of vessel S.S. "Aquitania" ✓

General Remarks (State quality of workmanship, opinions as to class, &c. Pumps. Feed pump room. Transfer 7½×6×10 bilge 6×4×6. Cargo pump room: 2. 12×20×13×24. bilge 6×4×6. Donkey 14×10¼×12: Evaporator 5½×4¾×5: Condensate 7½×8½×10. Feed pumps 2 @ 15×10×24. Shipper 12×8×12: Sanitary 7½×6×10: Fresh water 5¼×4¾×5: Bilge 2 @ 7½×6×10: Fuel oil 2 @ 6×4×6: Aux Condenser 12×14×14×1

The Machinery of this Vessel has been built under Special Survey, the materials and workmanship are of good quality, and the machinery has been securely fitted on board and proved satisfactory under steam trial
It is submitted that the Vessel be eligible for a record of ✠LMC 9-21 and to have notation fitted for oil fuel 9-21 Flash point above 150°F. in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. ✠ L.M.C. - 9.21. F.D. C.L.
Fitted for Oil Fuel 9.21. F.P. above 150°F.

L.Y. 2/11/21. Chas. J. Adamson
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ...	$30.00 ✓	When applied for, Sept. 30 1921	H.G.K.
Special ... Electric light	$579.75 ✓ $250.00		
Donkey Boiler Fee ...	$35.00	When received, 19.10.19	31/10.
Travelling Expenses (if any)	$40.00		

Committee's Minute New York OCT 11 1921

Assigned +LMC-9.21

MACHINERY CERT. WRITTEN, 14-11-21 (dated 31.10.21)

The Surveyors are requested not to write on or below the space for Committee's Minute.

Certificate (if required) to be sent to

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