

REPORT ON MACHINERY.

No. 20242

TUE. 17 MAY. 1921

Date of writing Report

10

When handed in at Local Office

10

Port of

Received at London Office

New York

No. in Survey held at
Reg. Book.

Staten Island

Date, First Survey 28 April 20 Last Survey April 9th 1921

on the S.S. "SAN UBALDO."

(Number of Visits)

Tons }
Gross }
Net }

Master F. Harrison Built at New York By whom built Standard Shipbuilding Corp When built 1921

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

Boilers made at New York By whom made Standard SB Corp. when made 1921

Registered Horse Power Owners Eagle Oil Transport Co. Port belonging to London

Nom. Horse Power as per Section 28 544 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion Vert. Inverted No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 27" x 45" x 74" Length of Stroke 48" Revs. per minute 80 Dia. of Screw shaft as per rule 14.82" Material of Steel
as fitted 15.58" screw shaftIs 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 partbetween 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 64"Dia. of Tunnel shaft as per rule 13.4" Dia. of Crank shaft journals as per rule 14.05" Dia. of Crank pin 14.5" Size of Crank web 27.5" x 9.5" Dia. of thrust shaft under
collars 14.4" Dia. of screw 17-9" Pitch of Screw 17-0" No. of Blades 4 State whether moveable No Total surface 101"

No. of Feed pumps 2 Weirs Diameter of ditto 8" x 10.5" Stroke 21" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4" Stroke 26" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 5 Sizes of Pumps or TRANS. 8" x 8" x 10" DUP. No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 7' @ 3.5" GEN. SER. 2 AUX FEED EACH 8" x 6" x 8" DUPLEX.

Pump Room 2 @ 4", 2 @ 2.5", Aft Cofferdam 1 @ 3.5" In Holds, &c. Fore Hold 2 @ 2.5", Fore Cofferdam 1 @ 4"

No. of Bilge Injections 1 sizes 10" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 4.5"

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 None

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 Just 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 bunkers only 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 None Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Lukens

Total Heating Surface of Boilers 8160 sq. ft. Is Forced Draft fitted Yes No. and Description of Boilers 3 Scotch

Working Pressure 180 lb Tested by hydraulic pressure to 320 lb Date of test 14 FEB. 1921 No. of Certificate 450
26 " 1921 No. of Certificate 452
7 MARCH 1921 No. of Certificate 454

Can each boiler be worked separately Yes Area of fire grate in each boiler 670 sq. ft. No. and Description of Safety Valves to

each boiler 2 Spring Loaded Area of each valve 9.6 sq. ft. Pressure to which they are adjusted 185 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork About 2 feet Mean dia. of boilers 15-6" Length 11-7" Material of shell plates Steel

Thickness 1/32" Range of tensile strength 60000 lb. min. Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R.

long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1 7/16" Pitch of rivets 8 3/4" Lap of plates or width of butt straps 21"

Per centages of strength of longitudinal joint rivets 98 plate 83.6 Working pressure of shell by rules 194 Size of manhole in shell 18" x 22"

Size of compensating ring 38" x 34" No. and Description of Furnaces in each boiler 3 Corrugated Material Steel Outside diameter 49 5/32"

Length of plain part top 37" bottom 64" Thickness of plates crown 37" bottom 64" Description of longitudinal joint Weld No. of strengthening rings

Working pressure of furnace by the rules 186 Combustion chamber plates: Material Steel Thickness: Sides 19/32" Back 19/32" Top 19/32" Bottom 7/8"

Pitch of stays to ditto: Sides 7 1/2" x 7 1/4" Back 7 1/2" x 7 1/4" Top 8" x 7 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 223

Material of stays Steel Area at smallest part 1.48 sq. ft. Area supported by each stay 54 1/2 sq. ft. Working pressure by rules 197 End plates in steam space:

Material Steel Thickness 1 3/32" Pitch of stays 17" x 17" How are stays secured D. NUTS Working pressure by rules 186 Material of stays Steel

Area at smallest part 5.94 sq. ft. Area supported by each stay 289 sq. ft. Working pressure by rules 186 Material of Front plates at bottom Steel

Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 1/4" 7 1/2" x 7 1/4" Working pressure of plate by rules 223

Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 1/2" Material of tube plates Steel Thickness: Front 3/4" + 5/8" Back 3/4" Mean pitch of stays 9.125"

Pitch across wide water spaces 13 3/4" Working pressures by rules 180 Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 10" x 13 3/8" Length as per rule 2-7 1/4" Distance apart 8" Number and pitch of stays in each 3 @ 7 1/2"

Working pressure by rules 237 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

UPERHEATER. 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

Lloyd's Register

002340-002351-0273

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Top end, 2 bottom end, 2 Main Bearing Bolts and Nuts, Set of Coupling Bolts, Set of Feed and Bilge Pump Valves, 1 Set Piston Rings for each main engine cylinder, assorted bolts and nuts, Iron of various sizes, 1 Tail Shaft, 1 Propeller, 1 Ecc. Strap complete, 1 Link Block, 1 set Crank pin brasses, 2 sets Crosshead brasses, 1 Guide Shoe, 1 Air pump rod and nut, Circulating pump piston rod, + impeller with shaft, Set feed check valves, 12 pin ring studs and nuts, 24 Boiler tubes, 20 Condenser tubes 50 ferrules, 2 M.B. safety valve springs, Set of metallic packing, + various spares for auxiliaries

The foregoing is a correct description.

STANDARD SHIPBUILDING CORPORATION

A. Livingstone Macfarlane
SUPERINTENDING ENGINEER

Dates of Survey while building { During progress of work in shops - - 1920: Apr 28 May 25 - June 29 Oct 1 Nov 1 3 8 12 15 17 19 26 29 Dec 4 8 10 11 15 17 18 22 24 29 1921: Jan 4 7 12
During erection on board vessel - - - 14 17 19 21 25 30 Feb 1 2 7 10 14 16 23 26 Mar 1 5 7 15 16 18 22 24 29 Apr 1 2 5 6 7 9
Total No. of visits 55

Is the approved plan of main boiler forwarded herewith No.

Dates of Examination of principal parts—Cylinders Report Slides Covers Pistons Rods
Connecting rods See Philadelphia Report 4121 Crank shaft Thrust shaft Tunnel shafts Feb 3, 21 Screw shaft Feb 3, 21 Propeller Feb 3, 21
Stern tube Feb 23, 21 Steam pipes tested March 15, 1921 Engine and boiler seatings March 5, 21 Engines holding down bolts March 29, 21
Completion of pumping arrangements April 2, 1921 Boilers fixed March 29, 1921 Engines tried under steam April 2, 1921
Completion of fitting sea connections March 5, 1921 Stern tube March 1, 1921 Screw shaft and propeller March 5, 1921
Main boiler safety valves adjusted April 1, 1921 Thickness of adjusting washers F. 9" A. 3" F. 5" A. 7" F. 15" A. 32
Material of Crank shaft Identification Mark on Do. See Phila Report herewith Material of Thrust shaft Identification Mark on Do.
Material of Tunnel shafts Steel Identification Marks on Do. 549-109 HC Material of Screw shafts Steel Identification Marks on Do. WORKING 549-109 W SPARE 549-113 W
Material of Steam Pipes Lapwelded Steel Test pressure 540 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 "SAN TEODORO"

General Remarks (State quality of workmanship, opinions as to class, &c. The Engines were built at Chester, Pa

(See Phila Rpt 4121) The Boilers have been constructed of tested materials under special survey in accordance with plan approved New York, July 28th 1920.

The machinery has been installed by the builders in a workmanlike manner and the materials are good. An oil fuel burning (White System) installation has been fitted and the requirements of Section 49 of the rules have been met.

In my opinion the vessel is eligible for the record + L.M.C. 4.21 and the notation "Fitted for oil fuel (A. 21) F.P. above 150°F."

Forging Reports will be sent with report of S.S. "SAN UGON"

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 4.21 F.D. C.L. FITTED FOR OIL FUEL 4.21. F.P. ABOVE 150°F.

The amount of Entry Fee ... \$ 30 15. : When applied for, Special ... \$ 51 102. 20 May 1921 Donkey Boiler Fee ... \$ 7 50 100. 00 When received, Travelling Expenses (if any) \$ 15 75/8 1921

Committee's Minute New York MAY 3 1921

Assigned + L.M.C. 4.21

Alex. Lawrence.
Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 27 MAR. 1921

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