

## REPORT ON MACHINERY.

MON. JUL 18 1921

Received at London Office

Date of writing Report

When handed in at Local Office

Port of

New York

No. in Survey held at  
Reg. Book.

Date, First Survey

Last Survey

May 18th 1921

on the S.S.

"SAN UGON"

(Number of Visits)

Gross

Net

ster

Built at

New York

By whom built

Standard Shipbuilding Corporation

When built

1921

ines made at

Chester, Pa.

By whom made

Sun Shipbuilding Co.

when made

1921

lers made at

New York

By whom made

Standard Shipbuilding Corporation

when made

1921

istered Horse Power

Owners

Eagle Oil Transport Co.

Port belonging to

London

n. Horse Power as per Section 28

544

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

GINES, &amp;c.—Description of Engines

Triple Vertical Inverted

No. of Cylinders

3

No. of Cranks

3

Cylinders

27" x 45" x 74"

Length of Stroke

48"

Revs. per minute

80

Dia. of Screw shaft

as per rule 14.82"  
as fitted 15.8"

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

—

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

—

If two

are fitted, is the shaft lapped or protected between the liners

—

Length of stern bush

64"

Tunnel shaft

as per rule 13.4"  
as fitted 14.5"

Dia. of Crank shaft journals

as per rule 14.05"  
as fitted 14.5"

Dia. of Crank pin

14.5"

Size of Crank webs

27.5" x 9.5"

Dia. of thrust shaft under

14.5"

Dia. of screw

17.9"

Pitch of Screw

17.0"

No. of Blades

4

State whether moveable

No

Total surface

101"

Feed pumps

2 INDEP.

Diameter of ditto

8" x 10.5"

Stroke

21"

Can one be overhauled while the other is at work

Yes

Bilge pumps

2

Diameter of ditto

4"

Stroke

26"

Can one be overhauled while the other is at work

Yes

Donkey Engines

5

Sizes of Pumps

FORD BALL. 8" x 8" x 10" D.P.  
FER BALL. 10" x 12" x 12"  
WIL TRANS. 5.5" x 6" x 12"  
GEN. SER. 2 AQUAFED EACH 8" x 6" x 8"

No. and size of Suctions connected to both Bilge and Donkey pumps

ine Room

7 @ 3.5"

In Holds, &amp;c.

Aft. Cofferdam 3.5" Pump Room 2 @ 4", 2 @ 2.5"

Bilge Injections

1 sizes 10"

Connected to condenser, or to circulating pump

Pump

Is a separate Donkey Suction fitted in Engine room &amp; size

Yes 4.5"

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

connections with the sea direct on the skin of the ship

Yes

Are they Valves or Cocks

Both

y 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

y 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

Oil bunkers only

How are they protected

—

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

Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

—

worked from

ERS, &amp;c.—(Letter for record

S.)

Manufacturers of Steel

Lukens Steel Co.

Heating Surface of Boilers

8160"

Is Forced Draft fitted

Yes

No. and Description of Boilers

3 Scotch.

ng Pressure

180 lb

Tested by hydraulic pressure to

320

Date of test

MAR 18 1921  
MAR 31 1921  
APRIL 11 1921

No. of Certificate

455  
457  
458

ch boiler be worked separately

Yes

Area of fire grate in each boiler

67"

No. and Description of Safety Valves to

iler

2 Spring Loaded

Area of each valve

9.6"

Pressure to which they are adjusted

185

Are they fitted with easing gear

Yes

at distance between boilers or uptakes and bunkers or woodwork

2 feet

Mean dia. of boilers

15.6"

Length

11.7"

Material of shell plates

Steel

ess

1.13"

Range of tensile strength

26.8 TONS MIN.

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R

ams

T.R.D.B.S.

Diameter of rivet holes in long. seams

17/16"

Pitch of rivets

8 3/4"

Lap of plates or width of butt straps

21"

stages 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"

compensating ring

38" x 34"

No. and Description of Furnaces in each boiler

3 Morrison

Material

Steel

Outside diameter

49 5/32"

of plain part

top  
bottom

Thickness of plates

crown 37"  
bottom 64"

Description of longitudinal joint

Weld

No. of strengthening rings

—

ng 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"

f 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.

al of stays

Steel

Area at smallest part

1.48"

Area supported by each stay

54.4"

Working pressure by rules

197

End plates in steam space:

al

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

at smallest part

5.94"

Area supported by each stay

2.89

Working pressure by rules

186

Material of Front plates at bottom

Steel

ess

3/4"

Material of Lower back plate

Steel

Thickness

3/4" + 5/8"

Greatest pitch of stays

7 1/2" x 7 1/4"

Working pressure of plate by rules

223.

er 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"

across wide water spaces

13 3/4"

Working pressures by rules

180

Girders to Chamber tops: Material

Steel

Depth and

ss of girder at centre

10" x 1 3/8"

Length as per rule

2' 7 1/4"

Distance apart

8"

Number and pitch of stays in each

3 @ 7 1/2"

ng pressure by rules

237

Steam dome: description of joint to shell

—

% of strength of joint

er

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

How stayed

of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

RHEATER. Type

—

Date of Approval of Plan

Tested by Hydraulic Pressure to

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Is Easing Gear fitted

Test

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

Foundation

W1303-0000



IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 4 Top end bolts & nuts, 2 Bottom End Bolts & Nuts, 2 Main Bearing & Nuts, Set of coupling Bolts, Set of Feed and Bilge Pump Valves, 1 set rings for each main engine piston, Assorted Bolts and Nuts, Iron of Various Sizes.

1 Tailshaft, 1 propeller, 1 Eccentric Strap Complete, 1 Link Block Complete, 1 set Crank pin brasses, 2 sets Crosshead brasses, 1 guide shoe, 1 air pump rod and nut, Piston rod, unpeller & shaft for Centrifugal circulating unit, 1 set feed check valves, 12 Junk ring studs & nuts, 2 dozen boiler tubes, 20 Condenser tubes, 50 ferrules, 2 M.B. Safety Valve Springs, Set Metallic Packing, Set Fuel Oil Burners, 2

The foregoing is a correct description,

David Livingstone Moffat Manufacturer.

SUPERINTENDING ENGINEER  
 Dates of Survey while building { During progress of work in shops - - 1920: Apr 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, 14, 17, 19, 21, 25, 28 Feb 7, 10, 14, 18  
 { During erection on board vessel - - - 23, 26 Mar 1, 7, 12, 16, 18, 22, 25, 29, 31 Apr 1, 5, 8, 11, 13, 18, 21, 26, 29 May 2, 4, 6, 7, 11, 12, 16, 18  
 Total No. of visits 62

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders Report No 4154 Slides Covers Pistons Rods  
 Connecting rods See attached Crank shaft Thrust shaft Tunnel shafts Apr 13, 21 Screw shafts Apr 13, 21 Propeller April

Stern tube April 11, 1921 Steam pipes tested April 26, 21 Engine and boiler seatings Apr. 13, 1921 Engines holding down bolts May 4, 1921

Completion of pumping arrangements April May 12, 21 Boilers fixed April 29, 1921 Engines tried under steam May 7, 1921

Completion of fitting sea connections April 13, 21 Stern tube April 13, 1921 Screw shaft and propeller April 16, 1921

Main boiler safety valves adjusted May 18th 1921 Thickness of adjusting washers F  $\frac{3}{8}$ " A  $\frac{7}{16}$ " F  $\frac{1}{4}$ " A  $\frac{9}{32}$ " F  $\frac{9}{16}$ "

Material of Crank shaft See attached Identification Mark on Do. Material of Thrust shaft — Identification Mark on Do.

Material of Tunnel shafts Steel Identification Marks on Do. 549-11B W.C. Material of Screw shafts Steel Identification Marks on Do. WORKING 549-11B SPARE 549-11B

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

(See Phila Rpt. 4154 attached). The Boilers have been constructed under special supervision of tested material and in accordance with an approved plan. The machinery has been installed in a workmanlike manner by the builders and the materials are good.

An installation is fitted for the burning of oil fuel, and the requirements of Section 49 of the Rules have been met.

In my opinion the vessel is Eligible for the record + LMC 5. 21 and the notation "Fitted for oil fuel 5. 21 F.P. above 150°F.

It is submitted that this vessel is eligible for THE RECORD. + LMC. 5.21. F.D. C.L.

Fitted for Oil Fuel 5.21. F.P. above 150°F

Fees reduced by 50%  
 due to Mr French 10/1/23

The amount of Entry Fee ... \$ 30.00 : When applied for,

Special LATE FEE 7 MAY 1921 \$ 5.11 : 15.30 N.Y.K. 16/6/21 19

Donkey Boiler Fee ... £ 10.00 : 10.50

Travelling Expenses (if any) £ 200.00 : 7.50

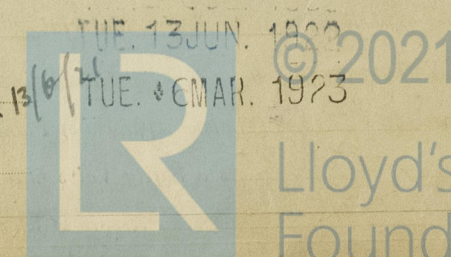
When received, 15/8/1923

Committee's Minute New York MAY 31 1921

Assigned t. Lmc. 5.21

Alex. Lawrence.

Engineer Surveyor to Lloyd's Register of Shipping



CERTIFICATE WRITTEN

Certificate (if required) to be sent to...

ms. Ganes