

REPORT ON MACHINERY.

No. 52.

REC'D NEW YORK

August 13 1917

Received at London Office

Writing Report 2nd Aug 17 When handed in at Local Office

19 Port of Detroit, Mich.

Survey held at Toledo, Ohio.

Date, First Survey Nov 20 1916

Last Survey 30 July 1917

on the Steel Screw Steamer "Louis"

(Number of Visits)

Built at Toledo, Ohio. By whom built Toledo S. B. Co. (No 138)

Tons

Gross

Net

When built 1917

made at Toledo, Ohio. By whom made Toledo S. B. Co. (Engines No 138)

when made 1917

made at Toledo, Ohio. By whom made Marine Boiler Works

when made 1917

red Horse Power

Owners Oriental Navigation Co

Port belonging to Nantes

Horse Power as per Section 28

260

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

VES, &c.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Cylinders 20 1/2 x 33 x 54 Length of Stroke 40

Revs. per minute 80

Dia. of Screw shaft

as per rule 11.775

Material of screw shaft

as fitted 12"

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 51

Tunnel shaft

as per rule 10.41

Dia. of Crank shaft journals

as per rule 10.93

Dia. of Crank pin 11

Size of Crank webs 16 1/2 x 7 1/2

Dia. of thrust shaft under

11"

Dia. of screw 14-6

Pitch of Screw 14-6

No. of Blades 4

State whether moveable No

Total surface 54

Feed pumps 2

Diameter of ditto 4"

Stroke 9

Can one be overhauled while the other is at work

Yes

Bilge pumps 2

Diameter of ditto 5 1/2"

Stroke 10

Can one be overhauled while the other is at work

Yes

Donkey Engines Two

Sizes of Pumps 10 x 7 x 2 7 x 7 x 10

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

Engine Room Two 3' dia. Stokehold 2-3' dia.

In Holds, &c. Stokehold 2-3' dia.

hold 3-3' dia. 1-3' dia Tunnel well.

Bilge Injections 1 sizes 6"

Connected to condenser, or to circulating pump C.P.

Is a separate Donkey Suction fitted in Engine room & size Yes 3"

Are 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 connections with the sea direct on the skin of the ship

Yes

Are they Valves or Cocks

Both

Are they fired 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

Are the pipes 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 Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

Is it worked from upper deck

Yes

MANUFACTURERS, &c.—(Letter for record S)

Manufacturers of Steel

Carnegie Steel

Heating Surface of Boilers 4828

Is Forced Draft fitted No

No. and Description of Boilers

Two Cyl. Mult. Single Ended.

Working Pressure 180 lbs

Tested by hydraulic pressure to 270 lbs

Date of test 21 & 29 May 1917

No. of Certificate

43 & 44

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

63

No. and Description of Safety Valves to

boiler Two Spring loaded

Area of each valve

9.6

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

Yes

Test distance between boilers and bunkers

13"

Mean dia. of boilers

14-6

Length 10-6

Material of shell plates

S

Thickness 15/16"

Range of tensile strength

28/32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams L. S. R.

seams T. R. 5/16"

Diameter of rivet holes in long. seams

1 7/16

Pitch of rivets

8 3/4

Length of plates or width of butt straps

20 3/4

Percentages of strength of longitudinal joint

rivets 104.5

plate 83.5

Working pressure of shell by rules

199 lbs

Size of manhole in shell

15 x 11

of compensating ring 30 x 32 x 1 1/2

No. and Description of Furnaces in each boiler

3 Corrugated

Material

S

Outside diameter 46 1/8

Thickness of plain part

top

bottom

Thickness of plates

crown 9 1/16

Description of longitudinal joint

Weld

No. of strengthening rings

None

Working pressure of furnace by the rules

191

Combustion chamber plates: Material

S

Thickness: Sides

9 1/16

Back

9 1/16

Top

5 1/8

Bottom

9 1/16

Number of stays to ditto: Sides

6 1/4 x 6 1/2

Back

6 1/2 x 6 1/2

Top

8 x 5 1/2

If stays are fitted with nuts or riveted heads

R. Heads

Working pressure by rules

185

Material of stays

S

Area at smallest part

1.024

Area supported by each stay

43.9

Working pressure by rules

184

End plates in steam space:

Material

S

Thickness

1 1/32

Pitch of stays

16 x 16

How are stays secured

S. nuts

Working pressure by rules

186

Material of stays

S

Area at smallest part

5.419

Area supported by each stay

256

Working pressure by rules

219

Material of Front plates at bottom

S

Thickness

3/4

Material of Lower back plate

S

Thickness

5/8

Greatest pitch of stays

6 1/2 x 6 1/2

Working pressure of plate by rules

236

Pitch of tubes

4 5/8 x 4 1/2

Material of tube plates

S

Thickness: Front

3/4

Pitch of tubes

3 1/2

Working pressures by rules

204

Girders to Chamber tops: Material

S

Depth and

Thickness of girder at centre

7 3/4 x 1 1/2

Length as per rule

26

Distance apart

8

Working pressure by rules

225

Steam dome: description of joint to shell

Yes

% of strength of joint

Yes

Thickness of shell plates

Yes

Material

Yes

Description of longitudinal joint

Yes

Diam. of rivet holes

Yes

Thickness

Yes

How stayed

Yes

Working pressure of shell by rules

Yes

Crown plates

Yes

Thickness

Yes

How stayed

Yes

Working pressure of shell by rules

Yes

Pressure to which each is adjusted

Yes

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

Yes

Is Easing Gear fitted

Yes

