

May 3-1920

4.

REPORT ON MACHINERY

No. 93

WED. MAY. 19 1920

Received at London Office

Date of survey 22nd Mar 1920 When handed in at Local Office

19 Port of

Wilmington N.C.

Survey held at Wilmington N.C.

Date, First Survey 22nd Nov. 1919 Last Survey 13th March 1920

on the Steel Screw Steamer "City of Omaha"

(Number of Visits 16)

Built at

Wilmington N.C.

By whom built

George A. Fuller & Co.

Gross 6527

Net 4049

When built 1920.3

Made at Hamilton, Ohio

By whom made

Hoover Owens & Teutschler & Co.

when made 1919

Made at Buffalo N.Y.

By whom made

Barber Asphalt Paving Co.

when made 1919

Horse Power

Owners United States Shipping Board

Port belonging to

Wilmington N.C.

Horse Power as per Section 28

590

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

Diameter of Cylinders

24 $\frac{1}{2}$ 41 $\frac{1}{2}$ 72

Length of Stroke

48

Revs. per minute

88

Dia. of Screw shaft

as per rule 14.32

as fitted 15.32

Material of screw shaft

0.4 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

Yes

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

Yes

If two

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

Yes

Length of stern bush

61

Dia. of Tunnel shaft

as per rule 13.04

as fitted 13.78

Dia. of Crank shaft journals

as per rule 13.7

as fitted 14

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

Dia. of screw

17.0

Pitch of Screw

13.1

No. of Blades

4

State whether moveable

Yes

Total surface

88.18

No. of Feed pumps

2

Diameter of ditto

12

Stroke

24

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

5

Stroke

21

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

12

8

12

7

12

10

12

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

In Engine Room

3

3

Bilge suction from Centre, Port & Star

In Holds, &c.

2

4

Bilge suction from Fore & Aft peaks & 1.2.3.5.7.6

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

3

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

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

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

Bilge suction from Peaks & Double bottom

How are they protected

Wood covering

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

Yes

Is it fitted with a watertight door

Yes

worked from

upper deck grating in Eng. room

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

Long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Percentages of strength of longitudinal joint

rivets

plate

Working pressure of shell by rules

Size of manhole in shell

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch 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

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

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

Pitches

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch 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

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

Lloyd's Register

Foundation

002085-002093-0250

IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

25 Main Condenser tubes 25 Auxiliary Condenser tubes
1 set of Safety valve springs 6 Boiler tubes for each boiler 1 set of Feed and Bilge pump
valves A quantity of assorted bolts and nuts and Iron of various sizes

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops --
During erection on board vessel --
Total No. of visits

Nov. 1919. 22. 26. Dec. 1. 9. 17. 23. 30. Jan. 1920. 9. 16. 20. 27. Feb. 5. 10. 19. March 3. 13.

Is the approved plan of main boiler forwarded herewith? No.

" " " donkey " " " "

Dates of Examination of principal parts—Cylinders

Slides

Covers

Pistons

Rods

Connecting rods

Crank shaft

Thrust shaft

Tunnel shafts

Screw shaft

Propeller

Stern tube

Steam pipes tested

Engine and boiler seatings

Engines holding down bolts

Completion of pumping arrangements

Boilers fixed

Engines tried under steam

Completion of fitting sea connections

Stern tube

Screw shaft and propeller

Main boiler safety valves adjusted

Thickness of adjusting washers

No washers

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

Test pressure

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. "Cranford" Reg. # 83

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

The machinery has been properly fitted on board and on completion tried under steam and found satisfactory

In my opinion the vessel is eligible for the record L.M.C. 3.20

It is submitted that this vessel is eligible for THE RECORD L.M.C. 3.20 F.D. Subject to the Water Tube Boiler being surveyed annually. 3 WATER TUBE BOILERS. FITTED FOR OIL FUEL 3.20 F.P. ABOVE 150°F.

27/5/20 J.P.R.

The amount of Entry Fee ... £ : :
1/3. Special ... £ \$82.50 : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 19...
When received, 15/20 18/20

Geo. Allan
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York MAY - 1920

Assigned L.M.C. 3.20

MACHINERY CERT. WRITTEN 19.5.20

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