

June 16-1920

See 8501st E. Rpt. No. 3324

in "Vacuum" Moore's Hull 157.

Rpt. 4.

REPORT ON MACHINERY.

No. 124

Date of writing Report

30/3/1920

When handed in at Local Office

30/3/1920

Port of

Received at London Office

TUE. JUL. 6 1920

No. in Survey held at

Hamilton Ohio.

Date, First Survey

Last Survey

19

Reg. Book.

on the Hull No. 157, ENGINE No. 4721,

(Number of Visits 8)

Tons { Gross
Net

Master

Built at

By whom built

When built

Engines made at

Hamilton Ohio

By whom made

Hooven Owen Rentschler Coy when made 1920.

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Vacuum Oil Coy N.Y. Port belonging to New York

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders

27 1/2, 46, 78"

Length of Stroke

51"

Revs. per minute

75

Dia. of Screw shaft

as per rule

Material of

screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

Is the after end of the liner made water tight

Is the propeller boss

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

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

15.5"

Dia. of Crank pin

16"

Size of Crank webs 30 1/2 x 10 1/2"

Dia. of thrust shaft under

Collars

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

Total surface

No. of Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Bilge pumps

2

Diameter of ditto

5"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

Sizes of Pumps

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

In Engine Room

In Holds, &c.

No. of Bilge Injections

sizes

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

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

Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

OILERS, &c.—(Letter for record

Manufacturers of Steel

Total Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure 220 lbs.

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

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

Thickness of plates

crown

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 of tubes

Pitch of tubes

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

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Foundation

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

Rpt. 13.

SPARE GEAR. State the articles supplied:— Two top, & bottom end, bolts & nuts. Two main bearing bolts & nuts. Set of connecting bolts & nuts. Set of rings for H.P. & L.P. pistons. Set of valves for air & bell pumps. Crank shaft section. Pair of top & bottom end brasses. Eccentric strap. H.P. & L.P. valve spindles. Link block & brasses. Air pump rod & bucket. Valve chest & cylinder cover studs. Set of rings for H.P. & L.P. piston valves. Relief valve springs.

The foregoing is a correct description,
(Engines only.)

THE HOOVEN, OWENS, RENTSCHLER CO

S. J. Heide Asst. Chief Engineer

Manufacturer.

ENG. NO. 4721. - JAN 17. 29. FEB 11. 18. 26. MAR. 3. 11. 18.

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

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts: Cylinders 29/1/20, 18/2/20, 26/3/20. Slides 3/3/20, 11/3/20. Covers 18/2/20, 11/3/20. Pistons 3/3/20, 11/3/20. Rods 2/3/20, 11/3/20. Connecting rods 3/3/20. Crank shaft 3/3/20. 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.

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. Is the flash point of the oil to be used over 150° F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case. If so, state name of vessel

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

The above Engines have been built under Special Survey. The materials & workmanship employed in their construction so far as can be seen are sound & good. They have been shipped to San Francisco & are intended for Hall No 157 building by The Moore Shipbuilding Corp. When the engines have been satisfactorily installed in the vessel, & proving satisfactory under working conditions, the vessel will be eligible in my opinion for Record of L.M.C. (with date.)

See 1st E. Rpt. No 3304.

The amount of Entry Fee ... \$13. L.M.C. fee to be credited to Cleveland. Donkey Boiler Fee ... £. Travelling Expenses (if any) \$140.00.

When applied for, 30/3/1920.

When received, 1/4/20.

G. Drummond.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

New York JUN 22 1920

Assigned.

See 1st E. Rpt 3304



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