

REC'D NEW YORK FEB - 7 1921

Rpt. 4.

REPORT ON MACHINERY.

No. 3446

Date of writing Report Jan 27 1921 When handed in at Local Office

Received at London Office

FRI 25 FEB. 1921

No. in Survey held at Alameda, California

Date, First Survey Aug 11

Last Survey Jan 20 1921

Reg. Book.

on the Steamer "YORBA LINDA"

(Number of Visits 26)

Master J. B. Barneson Built at Alameda, Calif. By whom built Bethlehem S.B. Corp.

Tons { Gross 7230
Net 4474

Engines made at Alameda Calif. By whom made Bethlehem S.B. Corp.

When built 1-1921

Boilers made at Portland, Oregon By whom made Willamette Iron & Steel Works.

when made 1921

Registered Horse Power

Owners General Petroleum Co.

Port belonging to San Francisco

Nom. Horse Power as per Section 28 600

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

Dia. of Cylinders 27" x 47" x 78"

Length of Stroke 48"

Revs. per minute 72

Dia. of Screw shaft

as per rule 15.5"

Material of

screw shaft

Is 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 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 3' 6"

Dia. of Tunnel shaft

as per rule 14.5"

Dia. of Crank shaft journals

as per rule 15.5"

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

collars 15.5"

Dia. of screw 18.0"

Pitch of Screw 17.1"

No. of Blades 4

State whether moveable

Total surface

89.2 sq. ft.

No. of Feed pumps 2

Diameter of ditto 12.5"

Stroke 24"

Can one be overhauled while the other is at work

No. of Bilge pumps 2

Diameter of ditto 4 1/2"

Stroke 24"

Can one be overhauled while the other is at work

No. of Donkey Engines 2

Sizes of Pumps 6.63 G.P.

12.5 x 12.5 x 12.5 D

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

In Engine Room 3-4"

Boiler room 2-3 1/2"

In Holds, &c.

Connected to forward hold 6.63 G.P. pumps

Forward peak 1-3"

Forward hold 2-3"

No. of Bilge Injections 1

size 10"

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

Yes

Are the roses in Engine room always accessible

Yes

Are the sluices on Engine room bulkheads always accessible

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

Yes

Are they Valves or Cocks

Valves

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

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

Yes

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

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

worked from

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

See Portland Report No 607

3.5B.

Total Heating Surface of Boilers 8235 sq. ft.

Is Forced Draft fitted

Yes

No. and Description of Boilers

3 Scotch Marine

Working Pressure 220 lbs.

Tested by hydraulic pressure to

330 lbs.

Date of test

No. of Certificate

189-190-191

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

Oil burner

No. and Description of Safety Valves to

each boiler

2 1/2" duplex spec. loaded

Area of each valve

19.24 sq. in.

Pressure to which they are adjusted

220 lbs.

Are they fitted with easing gear

Yes

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

Thickness of plates

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

W1641-0104

Lloyd's Register Foundation

IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:-

1 propeller shaft & nut, 2 propeller blades, 3 hub studs, 1 stern, 1 eccentric shaft complete, 1 piston rod & nut, 1 complete set of rings for each pump, 1 main journal bearing complete, 2 main journal belts & nuts, 2 crank pin bearing nuts, 1 set of coupling bolts, 1 set of crank pin boxes, 1 set of cross head brasses, 1 set of follower studs & nuts, 1 set of cylinder & valve cover studs & nuts, 1 complete set of valves, studs & springs for each size pump aboard, including bilge, fire, feed, and fuel oil pumps, 1 impeller & shaft, 1 set of crosshead & crank pin brasses, bolt for circulating pump, 2 thermometers, Large assortment of bolts, nuts, washers, rods, & pipe, fittings and packing.

The foregoing is a correct description,
BETHLEHEM SHIPBUILDING CORPORATION, LIMITED.

UNION PLANT

Asst. General Manager.

Manufacturer.

Dates of Survey while building: During progress of work in shops - - Aug 11-27 Sept 8-29 Oct 4-16 Nov 10.
During erection on board vessel - - Oct 16-Nov 12-17-20-22-24-26-30 Dec. 8-9-14-16-27-29 Jan 8-13-14-15
Total No. of visits 26.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " " "

Dates of Examination of principal parts—Cylinders Sept 29 Nov 10-22-24 Slides Nov 22 Covers Nov 10-22-24 Pistons Nov 26 Rods Nov 26
Connecting rods Nov 26 Crank shaft Aug 11 Thrust shaft Nov 26 Tunnel shafts Nov 12 Screw shaft Nov 12 Propeller Nov 12
Stern tube Sept 29 Steam pipes tested Dec 16-27 Engine and boiler seatings Oct 16 Engines holding down bolts Jan 14
Completion of pumping arrangements Jan 13 Boilers fixed Dec. 8. Engines tried under steam Jan 14.
Completion of fitting sea connections Nov 12 Stern tube Nov 12. Screw shaft and propeller Nov 20.
Main boiler safety valves adjusted Jan 13. Thickness of adjusting washers Lock nuts.

Material of Crank shaft steel Identification Mark on Do. LLOYD'S NO. 514 4721 4722 4723 4724 4725 4726 4727 4728 4729 4730 4731 4732 4733 4734 4735 4736 4737 4738 4739 4740 4741 4742 4743 4744 4745 4746 4747 4748 4749 4750 4751 4752 4753 4754 4755 4756 4757 4758 4759 4760 4761 4762 4763 4764 4765 4766 4767 4768 4769 4770 4771 4772 4773 4774 4775 4776 4777 4778 4779 4780 4781 4782 4783 4784 4785 4786 4787 4788 4789 4790 4791 4792 4793 4794 4795 4796 4797 4798 4799 4800
Material of Thrust shaft steel Identification Mark on Do.
Material of Tunnel shafts Identification Marks on Do.
Material of Screw shafts steel Identification Marks on Do.
Material of Steam Pipes steel Test pressure 240 lbs.

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 Franklin K. Lane See S.F. Rpt. N.

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

Spare propeller shaft
Lloyd's
1263-214
No. 513
W.C. 10-5-20.

The machinery of this vessel was constructed under special supervision of material tested to Rule requirements and the workmanship was found good throughout. On completion the machinery was thoroughly tested under working conditions with satisfactory results and in the opinion of the undersigned the machinery is eligible to be classed in the Register Book + L.M.C. 1-21, fitted for Fuel Oil 1-21, F.P. above 150°F. Electric

It is submitted that
this vessel is eligible for
THE RECORD + LMC 1-21. F.D. CL.
Fitted for oil fuel 1-21. F.P. above 150°F.

43 Mach fee (or \$84.00) to be credited to Portland, their Boiler Rpt. No. 607.

The amount of Entry Fee ... \$ 15.00 : When applied for,
Special ... \$250.00 : Jan. 27 1920
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) \$ 6.35 : When received, 10/3/20

J. Blackett A.W. Lawson
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York FEB - 8 1921

Assigned + Lmb. 1.21

MACHINERY CERT.
WRITTEN 9/3/21
dated 25/2/21



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