

pt. 4.

REPORT ON MACHINERY.

No. 3394

TUE. DEC. 7 1920

Received at London Office

Title of writing Report

19

When handed in at Local Office

19

Port of

SAN FRANCISCO.

No. in Survey held at
Reg. Book.

Alameda, Cal.

Date, First Survey July 23rd

Last Survey Nov. 3rd, 1920.

(Number of Visits 25)

on the S.S. "ALGONQUIN"

Tons

Gross 7203

Net 4475

When built 1920

Master H.D. Clarke

Built at Alameda, Cal.

By whom built Bethlehem S.B. Corp.

when made 1920

Engines made at

Alameda, California

By whom made Bethlehem Shipbuilding Corp.,

when made 1920

Boilers made at

Portland, Oregon.

By whom made Willamette Iron & Steel Co.,

when made 1920

Registered Horse Power

Owners Standard Transportation Co. of New York

belonging to New York

Horse Power as per Section 28

600

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders 27"x47"x78"

Length of Stroke 48

Revs. per minute 82

Dia. of Screw shaft

as per rule 15.5

Material of steel

as fitted 16.5

screw shaft

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

the propeller boss Yes If the liner is in more than one length are the joints burned welded

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 5'-6"

Dia. of Tunnel shaft

as per rule 14.47

Dia. of Crank shaft journals

as per rule 15.25

Dia. of Crank pin 15.5

Size of Crank webs 30x9 1/2

Dia. of thrust shaft under

Diameter of screw

18'-0"

Pitch of Screw 17'-1"

No. of Blades 4

State whether moveable Yes

Total surface

69.2 sq.ft.

Ind.

No. of Feed pumps

2

Diameter of ditto 12x8

Stroke 24

Can one be overhauled while the other is at work Yes

No. of Bilge pumps

2

Diameter of ditto 4 1/2"

Stroke 24

Can one be overhauled while the other is at work Yes

No. of Donkey Engines

3

Sizes of Pumps 6x4x6 Duplex

16x10x14 Duplex

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

Engine Room

3

Boiler room 3

- 4"

In Holds, &c. Connected to forward hold pump.

Forepeak 1

- 3"

Fore hold 2

- 3"

No. of Bilge Injections

1

sizes 10"

Connected to condenser or to circulating pump Cir. pump

a separate Donkey Suction fitted in Engine room & size

Yes 4"

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 the Discharge Pipes above or below the deep water line above

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

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

How are they protected

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

How are they protected

Are the pipes carried through the bunkers

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

Is it fitted with a watertight door No

Manufacturers of Steel See Portland Report No.

HEATERS, &c.—(Letter for record)

Total Heating Surface of Boilers 8235 sq'

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 171

Area of fire grate in each boiler oil burner

No. and Description of Safety Valves to 172

Can each boiler be worked separately Yes

Area of each valve 19.24 sq"

Pressure to which they are adjusted 220 lbs.

Are they fitted with easing gear Yes

Greatest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

Pitch of rivets

Lap of plates or width of butt straps

Diameter of rivet holes in long. seams

Working pressure of shell by rules

Size of manhole in shell

No. and Description of Furnaces in each boiler

Material

Outside diameter

No. of strengthening rings

Length of plain part

Thickness of plates

Description of longitudinal joint

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Working pressure by rules

End plates in steam space:

Material of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

Material of stays

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of Front plates at bottom

Working pressure of plate by rules

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

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

% of strength of joint

Working pressure by rules

Steam dome: description of joint to shell

Diam. of rivet holes

Material

Description of longitudinal joint

Thickness

How stayed

Working pressure of shell by rules

Crown plates

Thickness

SUPERHEATER. Type

Date of Approval of Plan

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

Tested by Hydraulic Pressure to

Lloyd's Register

Foundation

W1624-0182

IS A DONKEY BOILER FITTED? Yes

If so, is a report now forwarded? Yes

pt. 5.

SPARE GEAR. State the articles supplied:— 1 Propeller shaft and nut. 2 bronze propeller blades. 3 hub studs. 1 section crank shaft. 1 valve stem. 1 piston rod. 1 set of piston rings for each piston. 2 connecting rod crank pin bolts and nuts. 2 connecting rod crosshead bolts and nuts. 1 air pump bucket and rod. 1 set of coupling bolts. 1 set crank pin brasses. 1 set crosshead brass. 2 main bearing bolts. 1 link block. 12 piston studs and nuts. 12 cylinder studs and nuts. 20 boiler tubes. 50 condenser tubes and 100 ferrules. 1 set of valves, springs, studs and nuts for each size pump aboard including bilge, fire, air, feed and fuel oil pumps. 1 impeller shaft. Large assortment of rods, bars, plates, washers, nuts, packing and gaskets.

The foregoing is a correct description.

BETHLEHEM STEEL BUILDING CORPORATION, LIMITED.

UNION PLANT

Asst. General Manager

Manufacturer.

Dates of Survey while building { During progress of work in shops -- July 23, 28, 29. Aug. 5, 11, 23, 27. Sept. 5, 8, 13.
During erection on board vessel -- Aug. 5, 11, 23, 24. Sept. 29. Oct. 5, 7, 12, 16, 19, 22, 30. Nov. 1, 3.
Total No. of visits 25

Is the approved plan of main boiler forwarded herewith.

Dates of Examination of principal parts—Cylinders July 28 Aug. 5 Slides Aug. 5 Covers Aug. 11 Pistons Sept. 8 Rods Aug. 23
Connecting rods Aug. 11 Crank shaft July 28 Thrust shaft Aug. 11 Tunnel shafts Sept. 29 Screw shaft Sept. 8 Propeller Aug. 11
Stern tube Aug. 11 Steam pipes tested Oct. 19 Engine and boiler seatings Sept. 29th Engines holding down bolts Oct. 30th
Completion of pumping arrangements Oct. 32nd Boilers fixed Sept. 29th Engines tried under steam Oct. 30th
Completion of fitting sea connections Aug. 11th Stern tube Aug. 11th Screw shaft and propeller Aug. 23rd
Main boiler safety valves adjusted Nov. 3rd Thickness of adjusting washers Locknuts
Material of Crank shaft steel Identification Mark on Do. Lloyd's No. 2357
Material of Tunnel shafts Identification Marks on Do. Lloyd's No. 2361
Material of Steam Pipes steel Material of Screw shafts steel Identification Marks on Do. See below
Is an installation fitted for burning oil fuel Yes Test pressure 6.60

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 "Wm. H. Doheny" S.F. Rpt. No. 3389

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

Screw Shafts

Lloyd's No. 2360 R.S.

Lloyd's No. 2365 R.S.

and boilers

The machinery of this vessel were constructed under special survey 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 * LMC 11-20. Fitted for Fuel Oil 11-20. F.P. above 150°F. Electric Light.

It is submitted that this vessel is eligible for THE RECORD. + LMC. 11.20. F.D.

FITTED. FOR. OIL FUEL 11-20 FP above 150°F.

1/3 of mach. fee (or \$34.00) to be cred. Portland, Ore. their Boiler Rpt. No. 599.

The amount of Entry Fee ... \$ 15.00

Special ... \$ 250.00

Donkey Boiler Fee ... \$ 35.00

Travelling Expenses (if any) \$ 5.85

When applied for,

Nov. 13, 1920.

When received,

Dec. 13, 1920.

W. V. Rawson

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York

NOV 23 1920

Assigned + LMC 11.20.



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During erection on board vessel --
Total No. of visits