

See 871.79 Rht No. 2600

Rpt. 4.

REC'D NEW YORK OCT 19 1921

REPORT ON MACHINERY.

No. 3629.

Received at London Office

ERI. 18 NOV. 1921

Report Oct. 5th, 1921. When handed in at Local Office

Port of SAN FRANCISCO.

Survey held at Oakland, Cal.

Date, First Survey April 8th

Last Survey October 3, 1921.

the S/S "AMALTHUS", Hull No. 23.

(Number of Visits 21)

Tons { Gross Net

Built at Oakland, Cal. By whom built Union Construction Co.

When built 1921.

Surveyed at Hamilton, Ohio. By whom made Hooven, Owens Rentschler Co.

when made 1921

Surveyed at Oakland, Cal. By whom made Moore S.B. Company.

when made 1921

Horse Power Owners Anglo Saxon Petroleum Co.

Port belonging to London

Power as per Section 28 555 - 562 Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

S, &c.—Description of Engines

No. of Cylinders

No. of Cranks

Length of Stroke Revs. per minute 80

Dia. of Screw shaft as per rule 14.82 as fitted 15.625 Material of screw shaft 5

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

Is the after end of the liner made water tight

Is the liner 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

bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two

Is the shaft lapped or protected between the liners

Length of stern bush 70 1/2

Dia. of Crank shaft journals as per rule 13.39 as fitted

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

Dia. of screw 17.7 Pitch of Screw 17

No. of Blades 4

State whether moceable No

Total surface 81.03 sq.ft.

No. of pumps 2 Diameter of ditto 4 Stroke 26

Can one be overhauled while the other is at work Yes

No. of pumps 2 Diameter of ditto 4 Stroke 26

Can one be overhauled while the other is at work

No. of key Engines 6 Sizes of Pumps (2) 12x10x12 8x10x12 6x8x12

8x9x10 8x6x10

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

Room 3-4" B. Room 4-4"

In Holds, &c. F.P. 1-2 1/2 Hold 3-2 1/2

No. of Injections 1 sizes 10 Connected to condenser or to circulating pump Yes

Is a separate Donkey Suction fitted in Engine room & size Yes 4"

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

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

Are they Valves or Cocks Both

Are the pipes raised 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 the pipes 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 the pipes carried through the bunkers

None

How are they protected

Are the 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

worked from

RS, &c.—(Letter for record)

Manufacturers of Steel Illinois Steel Co.

Heating Surface of Boilers 8580

Is Forced Draft fitted Yes

No. and Description of Boilers 3 Scotch Marine

Working Pressure 180

Tested by hydraulic pressure to 320

Date of test 27-5-21.

No. of Certificate 176

Can the boiler be worked separately Yes

Area of fire grate in each boiler Oil Burner

No. and Description of Safety Valves to

No. of valves 2 spring loaded

Area of each valve 9.6

Pressure to which they are adjusted 180

Are they fitted with easing gear Yes

Distance between boilers or uptakes and bunkers or woodwork 14"

Mean dia. of boilers 15' 7 5/16

Length 11-7 Material of shell plates Steel

Range of tensile strength 28 to 32T. Are the shell plates welded or flanged No

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

Material of rivets TRDBS Diameter of rivet holes in long. seams 1 3/8

Pitch of rivets 8 7/8

Lap of plates or width of butt straps 19 5/8

Working pressure of longitudinal joint

90.4

Working pressure of shell by rules 182

Size of manhole in shell 16x12

Material of compensating ring Flanged

No. and Description of Furnaces in each boiler 3 Morrison

Material Steel Outside diameter 49 3/16

Thickness of plates top 19/32 bottom

Description of longitudinal joint welded

No. of strengthening rings

Working pressure of furnace by the rules 217

Combustion chamber plates: Material Steel Thickness: Sides 23/32 Back 23/32 Top 23/32 Bottom 7/8

Working pressure of stays to ditto: Sides 9x 6 7/8 Back 8 1/2 x 8 Top 10x6 7/8

Are stays fitted with nuts or riveted heads Rivetted

Working pressure by rules 188.

Material of stays Steel Area at smallest part 1.807

Area supported by each stay 70

Working pressure by rules 2.32

End plates in steam space

Material of stays Steel Thickness 1 1/2

Pitch of stays 19x19

How are stays secured D nuts

Working pressure by rules 193.9

Material of stays Steel

Material of Lower back plate Steel Thickness 3/4

Greatest pitch of stays 12 13

Working pressure of plate by rules 310

Material of tubes 2 1/2

Pitch of tubes 3 7/8 x 3 7/8

Material of tube plates Steel Thickness: Front 3/4" Back 23/32

Mean pitch of stays 10 3/8 x 7 3/8

Working pressures by rules across wide water spaces 13 3/4

Girders to Chamber tops: Material Steel Depth and

Material of girders at centre 11 x 1 1/2

Length as per rule 35

Distance apart 10

Number and pitch of stays in each 3 at 6 7/8

Working pressure by rules 209

Steam dome: description of joint to shell

% of strength of joint

Material of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Material of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

HEATER.

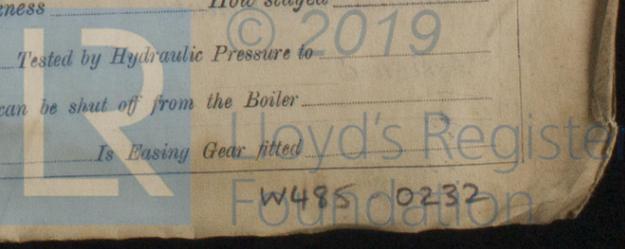
Type Date of Approval of Plan

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

Is Easing Gear fitted

Working pressure of Safety Valve

Pressure to which each is adjusted



IS A DONKEY BOILER FITTED? Yes

If so, is a report now forwarded? Yes

SPARE GEAR. State the articles supplied: 1 section of crank shaft, 1 propeller, 1 stern bearing, 1 eccentric strap complete, 2 pin connecting rod brasses, 1 set of crank pin brasses, 1 circulating pump rod, 1 valve spindle for main engine, 1 set of link brasses, 20 condenser tubes, 50 ferrules, 1 main cylinder piston rod, 1 set of safety valve springs, 1 cylinder and escape valve complete, 2 circulating rod top end brasses, bolts, and nuts, 2 connecting rod bottom end bolts and nuts, 2 main bearing bolts and nuts, 1 set of main bearings, 1 set of coupling bolts, 1 set of valves, springs, studs, for each size pump aboard including bilge, feed, fire and ballast and fuel oil pumps. Large assortment of bolts, nuts, washers, rods, packing, tools, plates, studs, 1 set of piston rings for each main engine piston, 1 air pump rod, 1 bilge or feed pump plunger, 100 boiler tubes.

The foregoing is a correct description,

Union Construction Co by H.G. Peake v.p. Manufacturer.

Dates of Survey while building: During progress of work in shops - Apr. 8, 21. June 1. July 12. August 19, 23, 24. During erection on board vessel - June 17, 24. July 11. August 8-11, 19. Sept. 3, 13, 14, 15, 21, 22, 24. Oct. 3. Total No. of visits 21

Is the approved plan of main boiler forwarded herewith? Yes

Is the approved plan of main boiler forwarded herewith? " donkey " " " " Yes

Dates of Examination of principal parts: Cylinders Slides Covers Pistons Rods Connecting rods Crank shaft Thrust shaft 15-9-21 Tunnel shafts - Screw shaft 1-6-21 Propeller 1-6-21 Stern tube 12-7-21 Steam pipes tested 24-8-21 Engine and boiler seatings 11-7-21 Engines holding down bolts 15-9-21 Completion of pumping arrangements 22-9-21 Boilers fixed 15-9-21 Engines tried under steam 24-9-21 Completion of fitting sea connections 22-9-21 Stern tube 22-9-21 Screw shaft and propeller 22-9-21 Main boiler safety valves adjusted 3-10-21 Thickness of adjusting washers P.B. 25/64 3/64 C.B. 31/64 31/64 S.B. 1/2 31/64 P.F. 77-8-11 Lloyd's 4898-29-12-1046-15-2 A.W.I. Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Steel Identification Mark on Do. Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts do Identification Marks on Do. Material of Steam Pipes Steel Test pressure 540 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 "AMPULLARIA", Hull No. 22.

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

The machinery and boilers of this vessel were constructed under special survey of materials 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 10-21 Fitted for Oil Fuel 10-21. F.P. above 150°F. Electric Light.

It is submitted that this vessel is eligible for THE RECORD. L.M.C. - 10.21. F.D. C.L.

Fitted for Oil Fuel, 10.21, F.P. above 150°F.

MACHINERY CERT. WRITTEN 14.12.21 (dated 18.11.21)

2/5 Mach. fee (or 205.50) plus \$92.55 expense to be credited Cleveland, then Eng Rpt. No. 158.

The amount of Entry Fee ... \$ 30.00 When applied for, Special ... \$ 513.75 Oct. 13 19 21 Donkey Boiler Fee Installatn 25.00 When received, Travelling Expenses (if any) \$ 12.60 3. 11. 19 22 Cleveland \$ 92.55

H.S. Archbolds Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York NOV - 1 1921 Assigned + LMC - 10.21