

REPORT ON MACHINERY.

No. 79596

Received at London Office

Date of writing Report

19

When handed in at Local Office

23 SEP 1919

Port of

Liverpool

1.24.1919

No. in Survey held at

Birkenhead

Date, First Survey

Last Survey

Sep 16 1919

Reg. Book.

292890 on the

s/s "Dionysios Stathatos" in "War Cadet"

(Number of Visits)

Gross 5168

Net 5172

Master

Built at

Birkenhead

By whom built

Cammell, Laird & Co. Ld.

When built

1919

Engines made at

Birkenhead

By whom made

Cammell, Laird & Co. Ld.

when made

1919

Boilers made at

Birkenhead

By whom made

Cammell, Laird & Co. Ld.

when made

1919

Registered Horse Power

Owners

Port belonging to

London

Nom. Horse Power as per Section 28

518

517

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple Expansion Reciprocating

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

27", 44", 73"

Length of Stroke

48"

Revs. per minute

82/90

Dia. of Screw shaft

as per rule 14 3/4"

Material of

Steel

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

If the liner is in more than one length are the joints burned continuous

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

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

Length of stern bush

Dia. of Tunnel shaft as per rule 13 3/4"

Dia. of Crank shaft journals as per rule 14 1/2"

Dia. of Crank pin 14 1/2"

Size of Crank webs 52 x 29 x 19"

Dia. of thrust shaft under collars 14 1/2"

Dia. of screw 17 1/6"

Pitch of Screw 16 1/6"

No. of Blades 4

State whether moveable

Total surface 98.2 sq. ft.

No. of Feed pumps 2

Diameter of ditto 4"

Stroke 24"

Can one be overhauled while the other is at work

No. of Bilge pumps 2

Diameter of ditto 4"

Stroke 24"

Can one be overhauled while the other is at work

No. of Donkey Engines 2

Sizes of Pumps 1 Ballast Pump 10" x 2 1/2" x 14"

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

In Engine Rooms 5-3 1/2" dia.

In Holds, &c. No. 1 Hold 2-3 1/2", No. 2 Hold 2-3 1/2", Reserve Bunker 2-3 1/2"

No. of Bilge Injections one

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

Main deck

QILERS, &c.—(Letter for record S)

Manufacturers of Steel John Spencer & Co. Ld., The Bank of Bully's Round Oak Works,

Total Heating Surface of Boilers 7668 sq. ft.

Forced Draft fitted

No. and Description of Boilers 3 Single Ended Cylindrical Multitubular

Working Pressure 180 lbs

Tested by hydraulic pressure to 360 lbs

Date of test 29/8/19

No. of Certificates 2037A, 2037B, 2037C

Can each boiler be worked separately

Area of fire grate in each boiler 63.3 sq. ft.

No. and Description of Safety Valves to each boiler 2 Spring loaded

Area of each valve 9.68 sq. in.

Pressure to which they are adjusted 185 lbs per sq. in.

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork 9'0"

Mean dia. of boilers 15'6"

Length 11'6"

Material of shell plates Steel

Thickness 1 1/2"

Range of tensile strength 28/32 ton

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams 2R. Lap.

ong. seams 1R. Double Lap

Diameter of rivet holes in long. seams 1 5/8"

Pitch of rivets 9"

Lap of plates or width of butt straps 10 1/2"

Per centages of strength of longitudinal joint

rivets 88.3

plate 85.6

Working pressure of shell by rules 182 lbs

Size of manhole in shell 16" x 12"

Size of compensating ring brided

No. and Description of Furnaces in each boiler 3 Corrugated Witherside

Material Steel

Outside diameter 4'2 1/2"

Length of plain part top

Thickness of plates crown 3 1/2"

Description of longitudinal joint Weld

No. of strengthening rings

Working pressure of furnace by the rules 188 lbs

Combustion chamber plates: Material Steel

Thickness: Sides 3 1/2"

Back 1 1/2"

Top 2 3/4"

Bottom 2 3/4"

Pitch of stays to ditto: Sides 10 1/2" x 9 1/4"

Back 10 1/2" x 8 1/2"

Top 10 1/2" x 9 1/4"

If stays are fitted with nuts or riveted heads

Material of stays Steel

Area at smallest part 2.36 sq. in.

Area supported by each stay 98.25 sq. in.

Working pressure by rules 216 lbs

End plates in steam space:

Material Steel

Thickness 1 3/8"

Pitch of stays 21 1/2" x 20 1/2"

How are stays secured

Working pressure by rules 181 lbs

Material of stays Steel

Area at smallest part 2.29 sq. in.

Area supported by each stay 44.5 sq. in.

Working pressure by rules 193 lbs

Material of Front plates at bottom Steel

Thickness 3 3/8"

Material of Lower back plate Steel

Thickness 2 3/8"

Greatest pitch of stays 13 1/2" x 8 1/2"

Working pressure of plate by rules 187 lbs

Diameter of tubes 2 1/2"

Pitch of tubes 4" x 3 1/2"

Material of tube plates Steel

Thickness: Front 3 1/2"

Back 2 1/4"

Mean pitch of stays 9 1/2"

Pitch across wide water spaces 13 1/2"

Working pressures by rules 181 lbs

Girders to Chamber tops: Material Steel

Depth and thickness of girder at centre 2' 10" x 7 1/2"

Length as per rule 35.56 in

Distance apart 10 1/2"

Number and pitch of stays in each 3-9 1/2"

Working pressure by rules 187 lbs

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

W383-0171

