

REPORT ON MACHINERY.

No. 27447

Received at London Office

Date of writing Report

19

When handed in at Local Office

11 MAR 1919

Port of

SUNDERLAND

WED. 12 MAR. 1919

No. in Survey held at
Reg. Book. *Steel S/S* "WESTCLIFF"

Date, First Survey

22 Mar. '17

Last Survey

March 5th 1919

(Number of Visits 34)

Tons { Gross 4747
Net 2963Master *Beeching*Built at *Sunderland*

By whom built

Priestman & Co (264)

When built 1919

Engines made at *Sunderland*

By whom made

G. Clark & Co (1062)

when made 1919

Boilers made at *Sunderland*

By whom made

G. Clark & Co (1062)

when made 1919

Registered Horse Power

Owners

Cliffside Shipping Co.

Port belonging to

Newcastle

Nom. Horse Power as per Section 28

384

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Luph

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

25, 41, 67

Length of Stroke

45

Revs. per minute

74

Dia. of Screw shaft

as per rule 13.92
as fitted 14

Material of screw shaft

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

yes

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

no

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

no

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

Length of stern bush

5' 3"

Dia. of Tunnel shaft

as per rule 12.41
as fitted 12.41

Dia. of Crank shaft journals

as per rule 13.03
as fitted 13.03

Dia. of Crank pin

13 1/2

Size of Crank webs

8 1/2 x 19 1/2

Dia. of thrust shaft under

collars

13 1/2

Dia. of screw

17'-0"

Pitch of Screw

15'-6"

No. of Blades

4

State whether moveable

no

Total surface

92 sq

No. of Feed pumps

2

Diameter of ditto

3 1/2

Stroke

26"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

4 1/2

Stroke

26"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2

Sizes of Pumps

9x10x10, 7 1/2x5x6

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

In Engine Room

3 @ 3 1/2"

In Holds, &c. 2 in fore hold 3 1/2, 2 in main hold 3 1/2, 2 in

No. of Bilge Injections

1

size

6"

Connected to condenser to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room & size

4 1/2 3 1/2

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

yes

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

yes

Are they Valves or Cocks

both

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

yes

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

yes

What pipes are carried through the bunkers

none

How are they protected

no

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

yes

worked from

upper platform

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

Spencer & Sons

Total Heating Surface of Boilers

5364 sq

Is Forced Draft fitted

yes

No. and Description of Boilers

Three Single Ended

Working Pressure

150 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

10.1.19

No. of Certificate

3523

Can each boiler be worked separately

yes

Area of fire grate in each boiler

439

No. and Description of Safety Valves to

each boiler

2 Spring Valves

Area of each valve

7.6 sq

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

12 in

Mean dia. of boilers

3'-6"

Length

10'-6"

Material of shell plates

S

Thickness

1 1/2

Range of tensile strength

20 1/2 - 33

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

all riveted

long. seams

all riveted

Diameter of rivet holes in long. seams

1 1/2

Pitch of rivets

7 1/2

Lap of plates or width of butt straps

16"

Per centages of strength of longitudinal joint

rivets 86.6
plate 86.6

Working pressure of shell by rules

180

Size of manhole in shell

16 x 12

Size of compensating ring

Hinged

No. and Description of Furnaces in each boiler

3 plain

Material

S

Outside diameter

3'-3 1/2"

Length of plain part

top 6'-4 1/2"
bottom 5'-11 1/2"

Thickness of plates

3 1/2

Description of longitudinal joint

welded

No. of strengthening rings

—

Working pressure of furnace by the rules

180

Combustion chamber plates: Material

S

Thickness: Sides

1 1/2

Back

1 1/2

Top

1 1/2

Bottom

Pitch of stays to ditto: Sides

9 1/2 x 9 1/2

Back

10 1/2 x 9 1/2

Top

10 1/2 x 9 1/2

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

180

Material of stays

S

Area at smallest part

2.03 sq

Area supported by each stay

93.6 sq

Working pressure by rules

195

Material

S

Thickness

1 1/2

Pitch of stays

20 1/2 x 18

How are stays secured

all riveted

Working pressure by rules

180

Material of stays

S

Area at smallest part

7.06 sq

Area supported by each stay

38.6 sq

Working pressure by rules

189

Material of Front plates at bottom

S

Thickness

1 1/2

Material of Lower back plate

S

Thickness

2 1/2

Greatest pitch of stays

15 1/2 x 9 1/2

Working pressure of plate by rules

181

Diameter of tubes

2 1/2

Pitch of tubes

3 3/4 x 3 5/8

Material of tube plates

S

Thickness: Front

1 1/2

Back

3/4

Mean pitch of stays

9 1/2

Pitch across wide water space

14" x 1 1/2"

Working pressures by rules

262

Girders to Chamber tops: Material

S

thickness of girder at centre

8" x 1 3/4"

Length as per rule

31"

Distance apart

9"

Number and pitch of stays in each

2, 9"

% of strength of joint

—

Working pressure by rules

184

Steam dome: description of joint to shell

—

Description of longitudinal joint

—

Diam. of rivet holes

—

Diameter

—

Thickness of shell plates

—

Material

—

Description of longitudinal joint

—

How stayed

—

Pitch of rivets

—

Working pressure of shell by rules

—

Crown plates

—

Thickness

—

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

—

B10-9113

If so, is a report now forwarded?

FOR GEORGE CLARK LIMITED.

Manufacturer.

Is the approved plan of main boiler forwarded herewith yes

” “ ” *donkey* ” ”

Is an installation fitted for burning oil fuel NO ✓ 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. No ✓ If so, state name of vessel ✓

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

The Machinery of this vessel has been built under special survey, the materials and workmanship are sound and good and under the vessel shifts in my opinion to have merit of + L.M.C. 3.19

A dynamo suitable for a wireless installation has been fitted on board

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 3.19. F.D.

When applied for,

When received.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

+ L^o M.C. 3. 19

RECEIVED

Dated 4 Oct 1979
(83o) (74843) Wt. 1979

(830) (74343) Wt. 1979