

REPORT ON MACHINERY.

No. 81292

27 SEP 1920

Received at London Office

WED. SEP. 29 1920

Date of writing Report

19

When handed in at Local Office

19

Port of

LIVERPOOL

in Survey held at

Lytham

Date, First Survey

18 Nov 19

Last Survey

13 Sept 1920

g. Book.

on the

S.S. 'Briarfield'

(Number of Visits)

13

Master

T.R. Clugston

Built at

Lytham

By whom built

Lytham Shipb. & Eng. Co.

When built

1920

Engines made at

Lytham

By whom made

D^o

when made

D^o

Machinery made at

D^o

By whom made

D^o

when made

D^o

Registered Horse Power

✓

Owners

Zillah Shipping & Carrying Co.

Port belonging to

Liverpool

Horse Power as per Section 28

88

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Vertical Triple

No. of Cylinders

3

No. of Cranks

3

No. of Cylinders

14, 22, 38

Length of Stroke

24"

Revs. per minute

Dia. of Screw shaft

as per rule 7.92

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

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

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

✓

Length of stern bush

3'-2"

Dia. of Tunnel shaft

as per rule 6.8

Dia. of Crank shaft journals

as per rule 7.2

Dia. of Crank pin

7 1/4

Size of Crank webs

11 x 4 3/4

Dia. of thrust shaft under

No. of Blades

7 1/4

Dia. of screw

9-0

Pitch of Screw

10-6

No. of Blades

4

State whether moveable

Yes

Total surface

26 0'

No. of Feed pumps

2

Diameter of ditto

2 1/2

Stroke

12

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

2 1/2

Stroke

12

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

6 1/2 x 6 1/2 x 8 ballast.

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

Engine Room

one 2 1/4, two 2"

In Holds, &c.

one 2 1/2, 2 @ 2" fore hold.

No. of Bilge Injections

1

sizes

3 1/2"

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size

Yes, 2 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

None

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

Yes

Are they Valves & Cocks

Yes

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

Yes

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

None

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

None

Is it fitted with a watertight door

✓

worked from

✓

MILERS, &c.—(Letter for record)

S.

Manufacturers of Steel

Messrs Beardmore & Co.

Total Heating Surface of Boilers

1520 0'

Is Forced Draft fitted

No

No. and Description of Boilers

one, cylindrical

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

27.7.20

No. of Certificate

2135

Can each boiler be worked separately

✓

Area of fire grate in each boiler

49 0'

No. and Description of Safety Valves to

Each boiler

2, spring loaded

Area of each valve

5.93 0"

Pressure to which they are adjusted

180 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

20"

Mean dia. of boilers

13'

Length

10'

Material of shell plates

M.S.

Thickness

1 1/16"

Range of tensile strength

28-32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R. lap

Long. seams

T.R. double butt

Diameter of rivet holes in long. seams

1/8"

Pitch of rivets

8"

Lap of plates or width of butt straps

1-4 1/4"

Percentages of strength of longitudinal joint

rivets 86 1/2

plate 86

Working pressure of shell by rules

182

Size of manhole in shell

16 x 12

Size of compensating ring

9 x 1

No. and Description of Furnaces in each boiler

3 plain

Material

M.S.

Outside diameter

3'-3"

Length of plain part

top 6'-6"

bottom 6'-5"

Thickness of plates

crown 3 3/4"

bottom 3 1/4"

Description of longitudinal joint

weld

No. of strengthening rings

one part

Working pressure of furnace by the rules

190

Combustion chamber plates: Material

M.S.

Thickness: Sides

1/16"

Back

5/8"

Top

1/16"

Bottom

1/16"

Pitch of stays to ditto: Sides

9 1/4 x 9 1/2

Back

9 1/4 x 8 1/2

Top

9 1/4 x 9 1/2

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

182, 144 1/2

Material of stays

M.S.

Area at smallest part

1.79

Area supported by each stay

88 0"

Working pressure by rules

184

End plates in steam space:

Material

M.S.

Thickness

1/8"

Pitch of stays

18 1/4"

How are stays secured

nuts & washers

Working pressure by rules

180

Material of stays

M.S.

Area at smallest part

7.07

Area supported by each stay

330 0"

Working pressure by rules

220

Material of Front plates at bottom

M.S.

Thickness

3/4"

Material of Lower back plate

M.S.

Thickness

13/16"

Greatest pitch of stays as per plan

Working pressure of plate by rules

184

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4 x 6 5/8"

Material of tube plates

M.S.

Thickness: Front

3/4"

Back

3/4"

Mean pitch of stays

10 3/8"

Pitch across wide water spaces

14"

Working pressures by rules

184

Girders to Chamber tops: Material

M.S.

Depth and

Thickness of girder at centre

8 3/4 x two 3/4"

Length as per rule

31 5/8"

Distance apart

9 1/2"

Number and pitch of stays in each

two, 9 1/4"

Working pressure by rules

180

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

✓

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— *eccentric strap, pair bottom end braces; set of coupling bolts & of bottom & top end & main bearing bolts; set of air, circulating, feed & bilge pump valves; 12 condenser tubes; 6 boiler tubes; assorted iron & bolts.*

THE LYTHAM SHIPBUILDING AND
ENGINEERING COMPANY, LIMITED.

The foregoing is a correct description,

W. L. Lacey
DIRECTOR

Manufacturer.

Dates of Survey while building
During progress of work in shops -- *1919. Nov 18. Dec 9. 1920. Apr 14. 26. May 17. Jun 3. July 2. 15. 27. Aug 6. 26. Sept 9. 13.*
During erection on board vessel --
Total No. of visits *13*

Is the approved plan of main boiler forwarded herewith *440*

" " " donkey " " ☒

Dates of Examination of principal parts—Cylinders *2.7.20* Slides *6.8.20* Covers *17.5.20* Pistons *18.11.19* Rods *18.11.19*
Connecting rods *18.11.19* Crank shaft *9.12.19* Thrust shaft *18.11.19* Tunnel shafts *✓* Screw shaft *2.6.20* Propeller *2.6.20*
Stern tube *26.4.20* Steam pipes tested *8.9.20* Engine and boiler seatings *15.7/6.8.20* Engines holding down bolts *8.9.20*
Completion of pumping arrangements *8.9.20* Boilers fixed *6.8.20* Engines tried under steam *13.9.20*
Completion of fitting sea connections *17.5.20* Stern tube *17.5.20* Screw shaft and propeller *2.7.20*
Main boiler safety valves adjusted *13.9.20* Thickness of adjusting washers *P 11/32 3/8 S.*
Material of Crank shaft *M.S.* Identification Mark on Do. *1349* Material of Thrust shaft *M.S.* Identification Mark on Do. *1342*
Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *M.S.* Identification Marks on Do. *1343*
Material of Steam Pipes *solid drawn copper* Test pressure *360 lbs.*

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 *Yes* If so, state name of vessel *S.S. 'Glenagary'.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been built under Special Survey. The materials & workmanship are good. Engines & boilers fitted on board in an efficient manner & tried under steam with satisfactory results, & are now eligible for record of + L.M.C. 9.20*

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 9.20

Roll #10120 GPR

MACHINERY DEPT.
WRITTEN
29.9.20

The amount of Entry Fee ... £ / : :
Special ... £ *13* : *4* :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ *9* : *10* :
When applied for, *19.11.20*
When received, *19.11.20*

S. L. Lacey & *J. H. Smith*
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

L 10 6 9.20 M.

When fee is paid



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Foundation