

REPORT ON MACHINERY.

No. 73249.

Date of writing Report

May 21 1915

When handed in at Local Office

28 MAY 1915

Port of

LIVERPOOL

Received at London Office

SAT. MAY. 29. 1915

No. in Survey held at

Lytham

Date, First Survey Aug 26

Last Survey May 19 1915

Reg. Book.

on the

S.S. "Dane-garth"

(Number of Visits)

17

Gross 139

Master

Field

Built at

Lytham

By whom built

Lytham S B & Co Ltd

Tons

Net

When built

1915

Engines made at

Lytham

By whom made

Lytham S B & Co Ltd

when made

1915

Boilers made at

Do

By whom made

Do

when made

15

Registered Horse Power

79

Owners

R. J. H. Rea

Port belonging to

Bristol

Nom. Horse Power as per Section 28

79

Is Refrigerating Machinery fitted for cargo purposes

✓

Is Electric Light fitted

h

ENGINES, &c.—Description of Engines

Vertical Compound Suf. Eng.

No. of Cylinders

Two

No. of Cranks

Two

Dia. of Cylinders

16" 34"

Length of Stroke

24"

Revs. per minute

✓

Dia. of Screw shaft

as per rule 7 7/8"

Material of

Iron

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

h

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

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

h

Length of stern bush

3' 1 1/2"

Dia. of Tunnel shaft

as per rule 6 8 1/2"

Dia. of Crank shaft journals

as per rule 7 1/2"

Dia. of Crank pin

7 1/2"

Size of Crank webs

4 3/4 x 1 1/4"

Dia. of thrust shaft under

collars

7 1/2"

Dia. of screw

9' 0"

Pitch of Screw

10' 6"

No. of Blades

4

State whether moveable

h

Total surface

32' 0"

No. of Feed pumps

one

Diameter of ditto

2 1/2"

Stroke

12"

Can one be overhauled while the other is at work

✓

No. of Bilge pumps

one

Diameter of ditto

2 1/2"

Stroke

12"

Can one be overhauled while the other is at work

✓

No. of Donkey Engines

one duplex

Sizes of Pumps

3' x 1 1/2' x 6' stroke

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

In Engine Room

Two 10 1/2"

In Holds, &c.

Forepeak

10 1/2"

Fore cabin

10 1/2"

Aft cabin 10 1/2", aft peak 10 1/2"

No. of Bilge Injections

one

size

3 1/2"

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size

Yes 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

✓

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

Steam pipes

How are they protected

Non conducting material and steel shield plates

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

Dates of examination of completion of fitting of Sea Connections

8.4.15

of Stern Tube

8.4.15

Screw shaft and Propeller

8.4.15

Is the Screw Shaft Tunnel watertight

✓

Is it fitted with a watertight door

✓

worked from

✓

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel

W. Beardmore & Co Ltd

Total Heating Surface of Boilers

1616

Is Forced Draft fitted

h

No. and Description of Boilers

one cylindrical multitub.

Working Pressure

140 lb

Tested by hydraulic pressure to

280 lb

Date of test

8.4.15

No. of Certificate

1998

Can each boiler be worked separately

✓

Area of fire grate in each boiler

55 sq ft

No. and Description of Safety Valves to

each boiler

Two Spring loaded

Area of each valve

2 3/4"

Pressure to which they are adjusted

145 lb

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

21"

Mean dia. of boilers

13' 0"

Length

10' 6"

Material of shell plates

Steel

Thickness

7/8"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

h

Descrip. of riveting: cir. seams

J.R. lap

long. seams

J.R. double butt

Diameter of rivet holes in long. seams

1 3/16"

Pitch of rivets

7 1/2"

Lap of plates or width of butt straps

15 3/4"

Per centages of strength of longitudinal joint

rivets 126

plate 84

Working pressure of shell by rules

142 lb

Size of manhole in shell

16 x 12"

Size of compensating ring

9' x 7 1/8"

No. and Description of Furnaces in each boiler

Three plain

Material

Steel

Outside diameter

3' 3"

Length of plain part

top 6' 3"

Thickness of plates

crown 3 1/2"

bottom 3 1/2"

Description of longitudinal joint

banded

No. of strengthening rings

one per boiler

Working pressure of furnace by the rules

157 lb

Combustion chamber plates: Material

Steel

Thickness: Sides

7/8"

Back

9/16"

Top

7/8"

Bottom

7/8"

Pitch of stays to ditto: Sides

9' x 9 3/4"

Back

9' x 8"

Top

9' x 9 3/4"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

150 lb

Material of stays

Steel

Diameter at smallest part

1 1/8" 1 1/2"

Area supported by each stay

72 sq in

Working pressure by rules

157 lb

End plates in steam space:

Material

Steel

Thickness

15/16"

Pitch of stays

18' x 15 3/4"

How are stays secured

Nuts & washers

Working pressure by rules

148 lb

Material of stays

Steel

Diameter at smallest part

4' 11"

Area supported by each stay

284 sq in

Working pressure by rules

150 lb

Material of Front plates at bottom

Steel

Thickness

3/4"

Material of Lower back plate

Steel

Thickness

23/32"

Greatest pitch of stays

13' x 9"

Working pressure of plate by rules

142 lb

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4' x 4 3/4'

Material of tube plates

Steel

Thickness: Front

3/4"

Back

1 1/16"

Mean pitch of stays

10 7/16"

Pitch across wide water spaces

14"

Working pressures by rules

148 lb

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

8' x 20 3/4"

Length as per rule

2' 7 7/8"

Distance apart

9"

Number and pitch of stays in each

Two 9 3/4"

Working pressure by rules

152 lb

Superheater or Steam chest; how connected to boiler

✓

Can the superheater be shut off and the boiler worked

separately

✓

Diameter

✓

Length

IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— *Set of Coupling bolts, two main bearing bolts, two top & two bottom end bolts, set of feed & bilge pump valves quantity of assorted bolts & nuts, iron of various sizes, twelve Condenser tubes.*

The foregoing is a correct description,

THE LYTHAM SHIPBUILDING and
ENGINEERING COMPANY, LIMITED.

F. L. Smith

Manufacturer.

MANAGING DIRECTOR.

Dates of Survey while building
During progress of work in shops -- 1914 Aug 14 Sep 21 Oct 7 Nov 6 Dec 2. 15. 1915 Jan 13. 28.
During erection on board vessel --- Feb 2. 22 Mar 11. 17. 31 Apr 8 May 7. 12. 14. 19.
Total No. of visits 17

Is the approved plan of main boiler forwarded herewith *Yes please to return for duplicate case.*

Dates of Examination of principal parts—Cylinders *21.9.14* Slides *15.12.14* Covers *15.12.14* Pistons *15.12.14* Rods *21.9.14*
Connecting rods *21.9.14* Crank shaft *21.9.14* Thrust shaft *21.9.14* Tunnel shafts *6.11.14* Screw shaft *11.3.15* Propeller *11.3.15*
Stern tube *11.3.15* Steam pipes tested *12.5.15* Engine and boiler seatings *8.4.15* Engines holding down bolts *12.5.15*
Completion of pumping arrangements *19/5/15* Boilers fixed *12.5.15* Engines tried under steam *May 19. 1/15*
Main boiler safety valves adjusted *May 19. 1/15* Thickness of adjusting washers *P. 7/16. S. 9/32*
Material of Crank shaft *steel* Identification Mark on Do. *1.758 JEM* Material of Thrust shaft *steel* Identification Mark on Do. *758. JEM*
Material of Tunnel shafts *steel* Identification Marks on Do. *758. JEM* Material of Screw shafts *iron* Identification Marks on Do. *758. JEM*
Material of Steam Pipes *Copper, solid drawn 2.7 159* Test pressure *280 lb. sq. in.*
Is an installation fitted for burning oil fuel ☒ 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. "Caingarth"*

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

The Machinery of this vessel has been constructed under special survey, and the materials and workmanship are good throughout.

The Machinery has been examined under steam and found satisfactory & is eligible in my opinion for record of + LMC 5.15.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 5.15.

J. W. D.
1/6/15
J. R. R.

The amount of Entry Fee £ 11 : 17 :
Special £ 1 : 0 :
Donkey Boiler Fee £ : :
Travelling Expenses (if any) £ 3 : 12 : 5
When applied for, 28 MAY 1915
When received, 2/7/15 3/7/15

Committee's Minute

Assigned

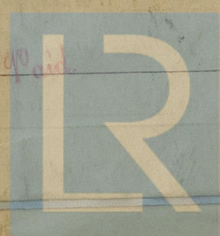
LIVERPOOL. 28 MAY 1915

L M C 5.15

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

J. S. Milton

MAINTENANCE CERTIFICATE
EXPIRES 29.7.15



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Foundation