

REPORT ON MACHINERY.

No. 44207.

Received at London Office

3 DEC 1924

Date of writing Report

19

When handed in at Local Office

29-11-1924

Port of

Glasgow

No. in Survey held at

Reg. Book.

on the

Glasgow

Date, First Survey

15-2-1924

Last Survey

27-11-1924

(Number of Visits 43)

s.s. "LUCISTON"

Master

Built at Port-Glasgow

By whom built

R. Duncan & Co. Ltd. (N^o 360)

When built 1924

Engines made at

Glasgow

By whom made

D. Rowan & Co. Ltd. (N^o 794)

when made 1924

Boilers made at

Glasgow

By whom made

D. Rowan & Co. Ltd. (N^o 794)

when made 1924

Registered Horse Power

Owners

W. S. Miller & Co.

Port belonging to

Glasgow

Nom. Horse Power as per Section 28

476

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

yes

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

26.42-70

Length of Stroke

48

Revs. per minute

80

Dia. of Screw shaft

as per rule 14.47

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

yes

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

charged

yes

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

-

Length of stern bush

5'-0"

Dia. of Tunnel shaft

as per rule 12.98

Dia. of Crank shaft journals

as per rule 13.629

Dia. of Crank pin

13 3/4

Size of Crank webs

21.8 3/4

Dia. of thrust shaft under

collars

14

Dia. of screw

17'-6"

Pitch of Screw

17'-6"

No. of Blades

4

State whether moveable

No

Total surface

92 ft²

No. of Feed pumps

2

Diameter of ditto

4

Stroke

24

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

4

Stroke

24

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

3

Sizes of Pumps

9 1/2 x 12, 7 1/2 x 6, 6 1/2 x 6

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

In Engine Room 2 C 3 1/2; Port C 2 1/2; After C 2 1/2; N^o 1 Hold 2 C 3; N^o 2 Hold 2 C 3 1/2; Deep Tank 2 C 2 1/2; N^o 3 Hold 2 C 3 1/2; N^o 3 Hold Well 1 C 3 1/2; Tunnel Well 1 C 2 1/2.

No. of Bilge Injections

one

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

1 C 4 1/2

Are all the bilge suction pipes fitted with roses

yes

Are the 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 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

-

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 Deck

BOILERS, &c.—(Letter for record S.)

Manufacturers of Steel

Port Talbot Steel Co. Ltd., The Lancashire Steel Co. Ltd., W. S. B. Beardmore & Co. Ltd.

Total Heating Surface of Boilers

7068 ft²

Is Forced Draft fitted

yes

No. and Description of Boilers

Three Single Ended

Working Pressure

180 lbs./sq. in.

Tested by hydraulic pressure to

320 lbs./sq. in.

Date of test

8-9-24

No. of Certificate

16596

Can each boiler be worked separately

yes

Area of fire grate in each boiler

63.3 ft²

No. and Description of Safety Valves to

each boiler

Two spring loaded

Area of each valve

8.29 ft²

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

5'-0"

Mean dia. of boilers

15'-6"

Length

11'-6"

Material of shell plates

Steel

Thickness

1 1/4"

Range of tensile strength

20/22 tons/sq. in.

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R. LAP

long. seams

T.R.D.B.S.

Diameter of rivet holes in long. seams

1 5/8"

Pitch of rivets

9 3/4"

Lap of plates or width of butt straps

19 3/4"

Per centages of strength of longitudinal joint

rivets 90.2

plates 86.6

Working pressure of shell by rules

180 lbs./sq. in.

Size of manhole in

BACK END PLATE 16" x 12"

Size of compensating ring

none

Description of Furnaces in each boiler

3 Deighton

Material

Steel

Outside diameter

3'-11 3/8"

Length of plain part

top

Thickness of plates

crown 1 1/2

bottom 1 1/2

Description of longitudinal joint

weld

No. of strengthening rings

none

Working pressure of furnace by the rules

183 lbs./sq. in.

Combustion chamber plates: Material

Steel

Thickness: Sides

23/32"

Back

11/16"

Top

23/32"

Pitch of stays to ditto: Sides

9" x 10 1/8"

Back

8 1/4" x 10 1/2"

Top

9" x 10 1/8"

If stays are fitted with nuts or riveted heads

Auto

Working pressure by rules

181 lbs./sq. in.

Material of stays

Steel

Area at smallest part

1 5/8" x 1 3/4"

Area supported by each stay

86.6 x 98.4

Working pressure by rules

180 lbs./sq. in.

End plates in steam space:

Material

Steel

Thickness

1 5/8"

Pitch of stays

20 1/2" x 21 3/4"

How are stays secured

Auto

Working pressure by rules

180 lbs./sq. in.

Material of stays

Steel

Area at smallest part

3 1/2" x 3"

Area supported by each stay

460 x 424

Working pressure by rules

194 lbs./sq. in.

Material of Front plates at bottom

Steel

Thickness

27/32"

Material of Lower back plate

Steel

Diameter of tubes

3"

Pitch of tubes

WINGS 4 1/2" x 4 1/2"

CENTRE 4 1/2" x 4 1/2"

Material of tube plates

Steel

Thickness: Front

27/32"

Back

3/4"

Mean pitch of stays

C. 10.5"

Pitch across wide water spaces

14"

Working pressures by rules

182 lbs./sq. in.

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

10 1/4" x 20 7/8"

Length as per rule

37 9/16"

Distance apart

Working pressure by rules

186 lbs./sq. in.

Steam dome: description of joint to shell

none

% 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

None

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

-

W216-DD35

Rpt. 4.
Date of writ
No. in
Reg. Book
Master
Engines m
Boilers m
Registered
Nom. Hor.
ENGINE
Dia. of C
Is the scr
in the pr
between th
liners are
Dia. of Tw
collars
No. of Fe
No. of Bi
No. of Do
In Engine
No. of Bilg
Are all the
Are all co
Are they f
Are they ea
What pipe
Are all P
Are the B
Is the Scr
BOILER
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Working
Can each
each boiler
Smallest di
Thickness
long. seam
Per centag
Size of com
Length of
Working p
Pitch of st
Material o
Material
Area at
Thickness
Diameter o
Pitch ac
thickness o
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Pitch of r
SUPER
Date of Te
Diameter o

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *-*

SPARE GEAR. State the articles supplied:— *All as per Rule requirements and, in addition; one propeller, one A.P. Piston Valve, and a quantity of small gear.*

The foregoing is a correct description,

DAVID ROWAN & CO., LIMITED

Alan Chummin

Manufacturer.

Dates of Survey while building { During progress of work in shops - - { *1924 Feb 15, Mar 26, 27, Apr 18, May 14, 28, Jun 2, 3, 4, 5, 11, 16, 23, July 7, 9, 10, 15, 30, Aug 4, 7, 12, 14, 22, 27, Sep 3, 5, 8, 10, 12*
During erection on board vessel - - - { *19 Oct 7, 9, 15, 21, 22, 24, 29, 31, Nov 4, 10, 11, 14, 27*
Total No. of visits *43* Is the approved plan of main boiler forwarded herewith *Yes*
" " " donkey " " " *-*

Dates of Examination of principal parts—Cylinders *12.8.24* Slides *5.9.24* Covers *12.8.24* Pistons *5.9.24* Rods *5.9.24*
Connecting rods *5.9.24* Crank shaft *7.7.24* Thrust shaft *9.10.24* Tunnel shafts *9.10.24* Screw shaft *10.9.24* Propeller *10.9.24*
Stern tube *19.9.24* Steam pipes tested *10.11.24* Engine and boiler seatings *15.10.24* Engines holding down bolts *11.11.24*
Completion of pumping arrangements *11.11.24* Boilers fixed *11.11.24* Engines tried under steam *27.11.24*
Completion of fitting sea connections *and* Stern tube *and* Screw shaft and propeller *see Greenock Report*
Main boiler safety valves adjusted *14.11.24* Thickness of adjusting washers *all 3/8"*
Material of Crank shaft *Steel* Identification Mark on Do. *LLOYD'S N° 794 7.7.24 W.L.* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYD'S N° 7026 H.C.F. 9.10.24*
Material of Tunnel shafts *Steel* Identification Marks on Do. *LLOYD'S N° 794 H.C.F. 9.10.24* Material of Screw shafts *Steel* Identification Marks on Do. *LLOYD'S N° 7042 J.S.C. 10.9.24*
Material of Steam Pipes *Lap welded wrought iron* Test pressure *540 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. "GRETASTON" Gb. Rpt. N° 43347*

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

*The materials and workmanship are good.
The machinery has been constructed under special survey and is eligible in our opinion for Classification and the Record + LMC 11.24.
It has been properly fitted on board and tried under steam with satisfactory results.*

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 11.24. FD. CL.

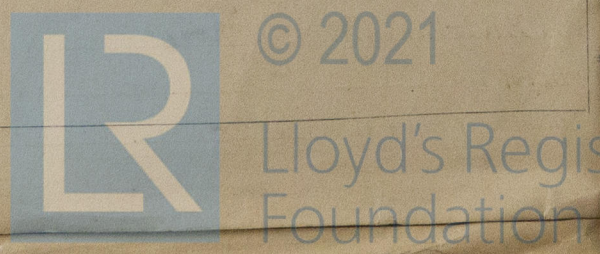
W.D. R.D.
4/12/24

The amount of Entry Fee ... £ *5 : 0 : 0* When applied for, *2 DEC. 1924*
Special ... £ *96 : 8 : 0*
Donkey Boiler Fee ... £ : : : When received, *4083 1924*
Travelling Expenses (if any) £ : : : *✓*

A.B. Forster. L.C. Davis.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned + LMC 11.24

CERTIFICATE WRITTEN *3.12.24*



26
29/11/24
Glasgow

The Surveyors are requested not to write on or below the space for Committee's Minute.