

## REPORT ON MACHINERY.

No. 44350.

Received at London Office - 4 FEB 1925

Date of writing Report

10

When handed in at Local Office

2.2.1925

Port of

Glasgow.

No. in Survey held at  
Reg. Book.

Glasgow

Date, First Survey

14.5.24

Last Survey

29-1-1925

on the

s.s. "RYDAL HALL"

(Number of Visits 48)

Gross

5580

Net

3551

Master

Built at

Glasgow

By whom built

Barday Curle &amp; Co. Ltd. (607)

When built

1925

Engines made at

Glasgow

By whom made

Barday Curle &amp; Co. Ltd. (607)

when made

1925

Boilers made at

Glasgow

By whom made

Barday Curle &amp; Co. Ltd. (607)

when made

1925

Registered Horse Power

Owners

Galloway Line Ltd.

Port belonging to

Liverpool

Nom. Horse Power as per Section 28

474

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

## ENGINES, &amp;c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

23½ - 40½ - 71

Length of Stroke

48

Revs. per minute

77

Dia. of Screw shaft

as per rule 14.66

Material of

Steel

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

yes, no oil gland

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

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

-

Length of stern bush

5-2½

Dia. of Tunnel shaft

as per rule 13.16

Dia. of Crank shaft journals

as per rule 13.81

Dia. of Crank pin

14½

Size of Crank webs

9-6½

collars

14

Dia. of screw

18-3

Pitch of Screw

17-3

No. of Blades

4

State whether moveable

yes

Total surface

105

No. of Feed pumps

2

Diameter of ditto

7-3

Stroke

2½

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

2

SIZES OF PUMPS

BALLAST GENERAL

9-8½-12

7½-5-9

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

In Engine Room

403

In Holds, &amp;c. N°1 - 203; N°2 - 203½; N°3 - 202½

N°4 - 203; N°5 - 103; Tunnel Well 102½

No. of Bilge Injections

1

sizes

7½

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room &amp; size

104¾

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

below

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, &amp;c.—(Letter for record S)

Manufacturers of Steel The Steel Co. of Scotland Ltd.; D. Colville Sons &amp; Co. Ltd.; W. Beardmore &amp; Co. Ltd.; 258 Frodingham Iron &amp; Steel Works.

Total Heating Surface of Boilers

6284

Is Forced Draft fitted

no

No. and Description of Boilers

2 Single Ended

Working Pressure

225 lbs./sq. in.

Tested by hydraulic pressure to

388 lbs./sq. in.

Date of test

10.10.24

No. of Certificate

16633

Can each boiler be worked separately

yes

Area of fire grate in each boiler

77

No. and Description of Safety Valves to

each boiler

two backburns High Lift type

Area of each valve

5.94

Pressure to which they are adjusted

230

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

2-6

Mean dia. of boilers

16-6

Length

12-6

Material of shell plates

Steel

Thickness

19/16

Range of tensile strength

30/34 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

16/8

Pitch of rivets

10/8

Lap of plates or

width of butt straps

23¾

Per centages of strength of longitudinal joint

rivets 87.5

Working pressure of shell by rules

225 lbs./sq. in.

Size of manhole in shell

20½ x 16½

Size of compensating ring

37½ x 33½ x 19/16

No. and Description of Furnaces in each boiler

4 Dighton

Material

Steel

Outside diameter

3-7¾

Length of plain part

top 11

Thickness of plates

bottom 11/16

Description of longitudinal joint

weld

No. of strengthening rings

none

Working pressure of furnace by the rules

232 lbs./sq. in.

Combustion chamber plates: Material

Steel

Thickness: Sides

3/32

Back

11/16

Top

21/32

Bottom

29/32

Pitch of stays to ditto: Sides

8 x 8½

Back

8¾ x 8½

Top

8 x 8½

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

227 lbs./sq. in.

Material of stays

Steel

DIA. OVER THREADS

Area at smallest part

15/8 x 1¾

Area supported by each stay

66

Working pressure by rules

230 x 257

End plates in steam space:

Material

Steel

Thickness

13/8

Pitch of stays

17½ x 21/8

How are stays secured

nuts

Working pressure by rules

226 lbs./sq. in.

Material of stays

Steel

DIA. OVER THREADS

Area at smallest part

33/8

Area supported by each stay

382.8

Working pressure by rules

228 lbs./sq. in.

Material of Front plates at bottom

Steel

Thickness

61/64

Material of Lower back plate

Steel

Thickness

7/8

Greatest pitch of stays

145/16 x 8½

Working pressure of plate by rules

230 lbs./sq. in.

Diameter of tubes

3

Pitch of tubes

4½ x 4½

Material of tube plates

Steel

Thickness: Front

61/64

Back

15/16

Mean pitch of stays

9-4

Pitch across wide water spaces

145/16

Working pressures by rules

F. 226 lbs./sq. in.

G. 340 lbs./sq. in.

Orders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

103/8 x 203/8

Length as per rule

403/8

Working pressure by rules

225 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

Smoke tube

Date of Approval of Plan

22-8-24

Tested by Hydraulic Pressure to

450 lbs.

Date of Test

29



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 pair of crankpin bushes, one eccentric strap, one valve spindle, one air pump rod and two propeller blades.

The foregoing is a correct description,  
FOR BARCLAY, CURLE & CO., LTD.

John Alexander

Manager

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } 1924. May 4. 21. 29. June 5. 24. July 15. 16. 30. Aug 1. 5. 6. 12. 22. 27. Sept 5. 16. 23. 28. 30.  
{ During erection on board vessel - - - } Oct 8. 10. 17. 20. 22. 27. Nov 5. 6. 10. 19. 24. 28. 29. Dec 9. 11. 24. 28. 26.  
Total No. of visits 48, Is the approved plan of main boiler forwarded herewith Yes.

Dates of Examination of principal parts—Cylinders 22.10.24 Slides 5.11.24 Covers 22.10.24 Pistons 5.11.24 Rods 10.11.24  
Connecting rods 10.11.24 Crank shaft 22.10.24 Thrust shaft 22.10.24 Tunnel shafts 22.10.24 Screw shaft 22.10.24 Propeller 6.11.24  
Stern tube 22.10.24 Steam pipes tested 19.11.24 Engine and boiler seatings 28.11.24 Engines holding down bolts 14.1.25  
Completion of pumping arrangements 29.1.25 Boilers fixed 14.1.25 Engines tried under steam 29.1.25  
Completion of fitting sea connections 28.11.24 Stern tube 6.11.24 Screw shaft and propeller 28.11.24  
Main boiler safety valves adjusted 21.1.25 Thickness of adjusting washers Port bl. - P $\frac{3}{8}$ " S $\frac{5}{16}$ " : Stbl bl. - P $\frac{3}{8}$ " S $\frac{3}{16}$ "

Material of Crank shaft <u>Steel</u>	Identification Mark on Do. <u>LLOYD'S N°594 H.C.F. 22.10.24</u>	Material of Thrust shaft <u>Steel</u>	Identification Mark on Do. <u>LLOYD'S N°594 H.C.F. 22.10.24</u>
Material of Tunnel shafts <u>Steel</u>	Identification Marks on Do. <u>LLOYD'S N°594 H.C.F. 22.10.24</u>	Material of Screw shafts <u>Steel</u>	Identification Marks on Do. <u>LLOYD'S N°594 H.C.F. 22.10.24</u>

Material of Steam Pipes Lapwelded wrought iron Test pressure 675 lbs per sq in

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 materials and workmanship are good.

The machinery has been constructed under special survey in accordance with the Rules and is eligible in our opinion for classification and the record

+ LMC 1,25

The engines and boilers have been properly fitted on board and tried under steam.

It is submitted that  
this vessel is eligible for  
**THE RECORD, + LMC 1.25. CL FD.**

See Sl. Rte 13/2/25.

J.W.D.  
4/2/25

W.D.

The amount of Entry Fee ... £ 5 : 0 : 0 When applied for.

Special ... £ 87 : 11 : 0 2/2/25

Donkey Boiler Fee ... £ 8 : 11 : 0 When received.

Travelling Expenses (if any) £ 25 : 2 : 25

H. Forster. S. Davis.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW - 3 FEB 1925

Assigned + LMC 1,25

CERTIFICATE WRITTEN 50R.



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Foundation