

Rpt. 4.

## REPORT ON MACHINERY

No. 38588

WED. 19 MAR. 1919

Received at London Office

Date of writing Report

19

When handed in at Local Office

19

Port of Glasgow

No. in Survey held at  
Ref. Book.

Glasgow

Date, First Survey 30<sup>th</sup> Nov. 1917 Last Survey 5<sup>th</sup> March 1919

(Number of Visits 56)

on the

S.S. TREMEADOY

Gross  
Tons  
Net

Master

Built at Glasgow

By whom built D. W. Henderson &amp; Co. Ltd. When built 1919

Engines made at

Glasgow

By whom made

D. W. Henderson &amp; Co. Ltd. when made 1919

Boilers made at

Glasgow

By whom made

D. W. Henderson &amp; Co. Ltd. when made 1919

Registered Horse Power

Owners Hain S.S. Co. Ltd.

Port belonging to St. Ives

Nom. Horse Power as per Section 28

517

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

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

Triple Expansion

No. of Cylinders

No. of Cranks

Dia. of Cylinders

27.44.73

Length of Stroke

48

Revs. per minute

80

Dia. of Screw shaft

as per rule 14.7  
as fitted 15.2

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

Two

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 13.38  
as fitted 13.2

Dia. of Crank shaft journals

as per rule 13.9  
as fitted 14.2

Dia. of Crank pin

14.2

Size of Crank web

28.9

Dia. of thrust shaft under

collars

14.2

Dia. of screw

17.6

Pitch of Screw

16.6

No. of Blades

4

State whether moveable

No

Total surface

95.2

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

4 @ 3.5  
2 @ 2.5  
1 @ 1.5

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

In Engine Room

Stokehold 4 @ 3.5

In Holds, &amp;c. No. 1 2 @ 3.5 No. 2 2 @ 3.5

No. of Bilge Injections

1

sizes

8

Connected to condenser, or to circulating pump

Pump

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

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

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

What pipes are carried through the bunkers

7. d. Suctions

How are they protected

Wood casing

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Top Platform

## BOILERS, &amp;c.—(Letter for record

S)

Manufacturers of Steel

Steel 6. d. Scotland Ltd.

Total Heating Surface of Boilers

6654

Is Forced Draft fitted

Yes

No. and Description of Boilers

3 Single ended

Working Pressure

180 lb

Tested by hydraulic pressure to

360 lb

Date of test

3.12.18

No. of Certificate

14544

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

63.3

No. and Description of Safety Valves to

each boiler

2 Spring loaded

Area of each valve

9.62

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

1.9

Mean dia. of boilers

15.6

Length

11.6

Material of shell plates

Steel

Thickness

1.5

Range of tensile strength

29.6

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

do half

long. seams

TRDBS

Diameter of rivet holes in long. seams

1.76

Pitch of rivets

9.8

Lap of plates or width of butt straps

19.2

Per centages of strength of longitudinal joint

rivets 88.3  
plate 85.6

Working pressure of shell by rules

182

Size of manhole in shell

16.2

Size of compensating ring

and flange

No. and Description of Furnaces in each boiler

3 Corrugated

Material

Steel

Outside diameter

4.2

No. of strengthening rings

—

Length of plain part

top  
bottom

Thickness of plates

crown 19  
bottom 32

Description of longitudinal joint

weld

No. of strengthening rings

—

Top 23  
Bottom 23

Working pressure of furnace by the rules

185

Combustion chamber plates: Material

Steel

Thickness: Sides

3.4

Back

1.6

Top 3.2  
Bottom 3.2

Pitch of stays to ditto: Sides

9.4 x 16.5

Back

8.4 x 10.4

Top

9.4 x 10.5

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

180

Material of stays

Steel

Area at smallest part

1.99

Area supported by each stay

9.8

Working pressure by rules

184

End plates in steam space:

Material

Steel

Thickness

1.36

Pitch of stays

2.7 x 10.5

How are stays secured

Nuts

Working pressure by rules

182

Material of stays

Steel

Area at smallest part

8.29

Area supported by each stay

4.45

Working pressure by rules

194

Material of Front plates at bottom

Steel

Thickness

3.2

Diameter of tubes

2.2

Pitch of tubes

4 x 3.8

Material of tube plates

Steel

Thickness: Front

3.1

Back

3.4

Mean pitch of stays

9.7

Pitch across wide water spaces

13.5

Working pressures by rules

181

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

10 x 7.5

(2)

Working pressure by rules

188

Steam dome: description of joint to shell

None

% of strength of joint

—

Diam. of rivet holes

—

How stayed

—

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

—

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

—

## SUPERHEATER. Type

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

Pressure to which each is adjusted

Is Easing Gear fitted

—

—

—

—

—

—

—

Diameter of Safety Valve

—

—

—

—

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—

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—

—

Date of Test

—

—

—

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—

Diameter of Safety Valve

—

—

—

—

—

—

—

—

—

No

*If so, is a report now forwarded?*

**SPARE GEAR.** State the articles supplied:— 2 Top end bolts and nuts, 2 bottom end bolts & nuts 2 main bearing bolts and nuts, 6 coupling bolts nuts, 1 set feed and bilge pump valves. Bolts and nuts assorted Iron and other spares as required by Specification.

*The foregoing is a correct description,*

St Patrick DIRECTOR Manufacturer.

Dates of Survey while building { During progress of work in shops -- { 1941 Nov 30 (1918) Jan 20 Apr 5, 12, 14, 26 May 22, 28, 31 June 5, 11, 24 July 9, 24 Aug 2, 5, 12, 14, 20 Sept 2.  
During erection on board vessel -- { 11, 14, 20, 23, 24, Oct 4, 8, 9, 12, 14, 29, 31 Nov 13, 14, 15, 19, 20 Dec 3, 14, 25 (1919) Jan 6, 10, 16 (2) 20, 13, 14, 25 Feb 11, 21 (2) 25, 26, 28, 4, 21, 5, 13  
Total No. of visits 56  
Is the approved plan of main boiler forwarded herewith

Is the approved plan of main boiler forwarded herewith

“ “ “ donkey “ “ “

Dates of Examination of principal parts—			
Cylinders	2-9-18	Slides	2-9-18
Covers	2-9-18	Pistons	2-7-18
Rods	12-8-18		
Connecting rods	12-8-18	Crank shaft	2-8-18
Thrust shaft	2-2-18	Tunnel shafts	15-11-18
Screw shaft	15-11-18	Propeller	3-11-18
Stern tube	20-11-18	Steam pipes tested	31-10-18
Engine and boiler seatings	2-12-19	Engines holding down bolts	2-12-19
Completion of pumping arrangements	2-12-19	Boilers fixed	2-12-19
Engines tried under steam	2-12-19		
Completion of fitting sea connections	17-12-18	Stern tube	17-12-18
Screw shaft and propeller	17-12-18		
Main boiler safety valves adjusted	2-12-19	Thickness of adjusting washers	pt B <sub>1</sub> , P <sub>7</sub> S <sub>10</sub> , comb. B <sub>1</sub> P <sub>7</sub> S <sub>10</sub> , G <sub>1</sub> B <sub>1</sub> P <sub>7</sub> S <sub>10</sub>
Material of Crank shaft	Steel	Identification Mark on Do.	2-9-18
Material of Thrust shaft	Steel	Identification Mark on Do.	2-9-18
Material of Tunnel shafts	Steel	Identification Marks on Do.	2-9-18
Material of Screw shafts	Steel	Identification Marks on Do.	2-9-18
Material of Steam Pipes	Iron	Test pressure	540 lb

*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*

*If so, state name of vessel*

Standard A

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

506	602	603	530	516	582
629	2124	2125	1933	1511-18	1938
JP	JP	JP	JP	JE	JP

The Machinery of this Vessel has been constructed under Special Survey in accordance with the Rules and approved Plans, and has been seen working under Steam Satisfactorily. Materials and workmanship are good. The original Port boiler was found to be cracked in the bottom shell Plate after test, and it was replaced by a similar boiler of set 10 B.L. by the same makers.

The Machinery is eligible in my Opinion to  
be Classed + LMC3-19. <sup>It is submitted that</sup>  
<sup>this vessel is eligible for</sup>

It is submitted that  
this vessel is eligible for  
**THE RECORD.** + L. M. C. 3.19 F.D  
TUES. 12 OCT 1928  
FRI. 22 JAN 1926

The amount of Entry Fee	...	3	16	5
Special	...	2		
Donkey Boiler Fee	...	4		
Travelling Expenses (if any)	...	1		

When applied for.

13/3/19

When received,

Committee's Minute

GLASGOW

18 MAR 1919

*Assigned*

+ L. M. C. 319

FBI. 20 FEB 1925

FRI MAR 19 1920

TUE. 25 OCT. 1921

TUE. JUL. 13 1920

TUESDAY

FRI. MAR. 18 1921

TUE DEC 05 1964

Certificate (if required) to be sent to \_\_\_\_\_