

REPORT ON MACHINERY.

No. 34091

Received at London Office

2 AUG. 1917

Writing Report

19

When handed in at Local Office

10

Port of Glasgow

Survey held at

Renfrew

Date, First Survey

14th Nov. 1916

Last Survey

Aug 9th

1917

Book.

on the

Steel Ss Larchol

(Royal Hut auxiliary oil in bulk)

(Number of Visits)

Tons

Gross

Net

Built at

Renfrew

By whom built

Lobnitz & Co Ltd

When built

1917

es made at

Renfrew

By whom made

do

when made

1917

s made at

do

By whom made

do

when made

1917

tered Horse Power

Owners

British Admiralty

Port belonging to

-

Horse Power as per Section 28

138

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

INES, &c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

of Cylinders

15" 25" 40"

Length of Stroke

30"

Revs. per minute

106

Dia. of Screw shaft

as per rule 8.9

as fitted 9"

Material of screw shaft

steel

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

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

on the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

close fit

If two

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

Length of stern bush

36"

of Tunnel shaft

as per rule 4.44

as fitted none

Dia. of Crank shaft journals

as per rule 8.12

as fitted 8 1/2

Dia. of Crank pin

8 1/2

Size of Crank webs

17x6

Dia. of thrust shaft under

rs

8 1/2

Dia. of screw

11-0"

Pitch of Screw

11"

No. of Blades

4

State whether moveable

no

Total surface

38 sq ft

of Feed pumps

2 Weirs

Diameter of ditto

5-7"

Stroke

15"

Can one be overhauled while the other is at work

yes

of Bilge pumps

2

Diameter of ditto

4 1/2"

Stroke

7 1/2"

Can one be overhauled while the other is at work

yes

of Donkey Engines

4

Sizes of Pumps

2 Weir Ballast 10-14x18

2 Cargo oil 22 1/2-15x24

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

Engine Room

2 of 3"

Stokehold

3 of 2 1/2"

Injector

3"

In-Holds, &c.

Hold 1 of 4"

Forward pump room

2 of 2 1/2"

fferdam

2 of 4"

Injector

3" in after pump room

of Bilge Injections

1 sizes 5"

Connected to condenser, or to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room

size

yes

4"

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

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

yes

Are they Valves or Cocks

both

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

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

-

hat pipes are carried through the bunkers

none

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

yes

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

yes

utes of examination of completion of fitting of Sea Connections

29.5.17

of Stern Tube

11.5.17

Screw shaft and Propeller

29.5.17

the Screw Shaft Tunnel watertight

none

Is it fitted with a watertight door

-

worked from

-

ILERS, &c.—(Letter for record

S

Manufacturers of Steel

McAlister & Sons

Steel Co of Scotland

total Heating Surface of Boilers

2200 sq ft

Is Forced Draft fitted

yes

orking Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

23.3.17

No. of Certificate

13737

an each boiler be worked separately

yes

Area of fire grate in each boiler

-

No. and Description of Safety Valves to

-

ch boiler

2 direct spring

Area of each valve

4.91

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

9-0"

Mean dia. of boilers

10-3"

Length

11-0"

Material of shell plates

steel

Thickness

31/32

Range of tensile strength

28/32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

DR lap

mg. seams

DBS. TR

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

6 7/8"

Lap of plates or width of butt straps

15 1/2"

Per centages of strength of longitudinal joint

99.9

Working pressure of shell by rules

204 lbs

Size of manhole in shell

18 1/2 x 14 1/2"

Material

steel

Size of compensating ring

3 1/2 x 2 1/2 x 1"

No. and Description of Furnaces in each boiler

2 Morrison

Description of longitudinal joint

weld

No. of strengthening rings

-

Length of plain part

top -

Thickness of plates

1 1/2"

Description of longitudinal joint

weld

No. of strengthening rings

-

Working pressure of furnace by the rules

196

Combustion chamber plates: Material

steel

Thickness: Sides

7/16"

Back

7/16"

Top

7/16"

Bottom

7/8"

Pitch of stays to ditto: Sides

7 1/2 x 8"

Back

7 1/2 x 8"

Top

7 1/4 x 8"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

182

Material of stays

steel

Area at smallest part

1.41"

Area supported by each stay

60"

Working pressure by rules

188

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description	When made	Where fixed
Made at	By whom made	No. of Certificate	Fire grate area
Working pressure	tested by hydraulic pressure to	Date of test	Date of adjustment
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted
If fitted with casing gear	If steam from main boilers can enter the donkey boiler	Dia. of donkey boiler	Length
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey

SPARE GEAR. State the articles supplied:— 2 top end, 2 bottom end, 4 main bearing and set of coupling bolts nuts. Set of feed & bilge pump valves. Assorted iron, bolts nuts and other spares as per Admiralty specification.

The foregoing is a correct description,

FOR LOBNITZ & CO. LIMITED,

Manufacturer.

Dates of Survey while building	During progress of work in shops	During erection on board vessel	Total No. of visits
1914. Jan. 17, 24. Dec. 4, 11, 26. 1915. Jan. 9, 12, 15, 16, 22, 29, 31. Feb. 5, 13, 19, 26. Mar. 1, 8, 12, 20.	Director.	45	Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders	12. 6. 17.	Slides	26. 4. 17.	Covers	12. 6. 17.	Pistons	26. 4. 17.	Rods	26. 4. 17.
Connecting rods	23. 4. 17.	Crank shaft	4. 4. 17.	Thrust shaft	17. 4. 17.	Tunnel shafts	—	Screw shaft	8. 5. 17.
Stern tube	8. 5. 17.	Steam pipes tested	5. 7. 17.	Engine and boiler seatings	29. 5. 17.	Engines holding down bolts	2. 7. 17.	Engines tried under steam	9. 8. 17.
Completion of pumping arrangements	8. 8. 17.	Boilers fixed	2. 7. 17.	Thickenss of adjusting washers	PB PV $\frac{7}{16}$ SV $\frac{1}{2}$	SB PV $\frac{1}{2}$ SV $\frac{7}{16}$	Identification Mark on Do.	818 AC	
Main boiler safety valves adjusted	6. 8. 17.	Material of Crank shaft	steel	Identification Mark on Do.	818 AC	Material of Thrust shaft	steel	Identification Marks on Do.	818 AC
Material of Tunnel shafts	—	Identification Marks on Do.	—	Material of Screw shafts	steel	Identification Marks on Do.	818 AC	Test pressure	540 lbs.
Material of Steam Pipes	steel								

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

The machinery of this vessel has been constructed under special survey in accordance with the rules and Admiralty requirements, and has been running working satisfactorily under steam. The vessel is intended for carrying oil in bulk and is fitted for burning oil fuel. (Howden Wallsend system) Materials & workmanship are good

This machinery is eligible in my opinion to be classed + LMC 8.17. Fitted for oil fuel F.P. above 150°F. Electric light.

It is submitted that this vessel is eligible for THE RECORD. + LMC 8.17. F.D.

Fitted for oil fuel 8.17. F.P. above 150°F.

The amount of Entry Fee	£ 65.:	When applied for.	19.:
Special	£	When received.	29/9/17
Donkey Boiler Fee	£		29/9/17
Travelling Expenses (if any)	£		

Committee's Minute GLASGOW. 21 AUG. 1917

Assigned + LMC 8.17.

Fitted for oil fuel—F.P. above 150°F

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

MACHINERY CERTIFICATE
WHITTEN 22.8.17



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Rpt. 13.

REPORT

Port of	GLASGOW
No. in Reg. Book	on the Iron-on S
Owners	Built at R
Yard No.	818 Elec

DESCRIPTION OF DYNAMO

Capacity of Dynamo	
Where is Dynamo fixed	
Position of Main Switch Board	
Positions of auxiliary switch	Shore term

If fuses are fitted on main circuits

If vessel is wired on the d

Are the fuses of non-oxid

Are all fuses fitted in eas

are permanent instrum

Are all switches and fuses

Total number of lights pro

A Navigation

B Crew Proj. has an

C Eng. & Blr. Rms. Mot

D Aft Cabins

E

1 Mast head light

2 Side light

4 Deck

If are lights, what protect

Where are the switches

DESCRIPTION OF CABLES

Main cable carrying 9"

Branch cables carrying 5"

Branch cables carrying 1"

Leads to lamps carrying

Cargo light cables carrying

DESCRIPTION OF INSULATION

Pure rule

Joints in cables, how mad

Are all the joints of cable

positions, none being

Are there any joints in

How are the cables led

Johnnies