

## REPORT ON MACHINERY.

No. 34142

Received at London Office

WED. JUN. 24 1914.

Date of writing Report

19

When handed in at Local Office

20.6.1914 Port of Glasgow

No. in Survey held at  
Reg. Book.

Coatbridge

Date, First Survey

19.12.13

Last Survey

1.6.1914

(Number of Visits 13)

Gross  
Tons  
Net

Master

Built at

Dundee

By whom built

Dundee SBC (265)

When built

1914

Engines made at

Coatbridge

By whom made

Lidgerwood &amp; Co (423)

when made

1914

Boilers made at

Glasgow

By whom made

D. Rowan &amp; Co (210)

when made

1914

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

81

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

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

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

12 3/4" 22" 36"

Length of Stroke

14

Revs. per minute

Dia. of Screw shaft

as per rule 7 3/4"

Material of screw shaft

iron

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

length

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

yes

If two

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

Length of stern bush

2' 9"

Dia. of Tunnel shaft

as per rule 4 1/2"

Dia. of Crank shaft journals

as per rule 4 1/2"

Dia. of Crank pin

7

Size of Crank webs

3 3/4" x 1 1/2"

collars

7

Dia. of screw

9.0

Pitch of Screw

11.6

No. of Blades

4

State whether moveable

yes

Total surface

36 sq ft

No. of Feed pumps

2

Diameter of ditto

2 3/8"

Stroke

12"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

2 3/8"

Stroke

12"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2

Sizes of Pumps

6" x 3" x 6"

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

In Engine Room

In Holds, &amp;c.

No. of Bilge Injections

1

sizes

3 1/2"

Connected to condenser, or to circulating pump

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

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

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

Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

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

Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers

How are they protected

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

Dates of examination of completion of fitting of Sea Connections

of Stern Tube

Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

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

Manufacturers of Steel

Total Heating Surface of Boilers

1438

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

180

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

49.5 sq ft

No. and Description of Safety Valves to

each boiler

pair direct Spring

Area of each valve

4.9

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

7309-0097

Lloyd's Register  
Foundation



# VERTICAL DONKEY BOILER— Manufacturers of Steel

No. \_\_\_\_\_ Description \_\_\_\_\_

Made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_ Where fixed \_\_\_\_\_

Working pressure tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ No. of Certificate \_\_\_\_\_ Fire grate area \_\_\_\_\_ Description of Safety \_\_\_\_\_

Valves \_\_\_\_\_ No. of Safety Valves \_\_\_\_\_ Area of each \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Date of adjustment \_\_\_\_\_

If fitted with easing 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 \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_ Plates \_\_\_\_\_

Working pressure of shell by rules \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ No. of stays to do. \_\_\_\_\_ Dia. of stays \_\_\_\_\_

Diameter of furnace Top \_\_\_\_\_ Bottom \_\_\_\_\_ Length of furnace \_\_\_\_\_ Thickness of furnace plates \_\_\_\_\_ Description of joint \_\_\_\_\_

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 :—

The foregoing is a correct description,

for LIDGERWOOD LIMITED Manufacturers *R. Sneddon*

Dates of Survey while building { During progress of work in shops -- } 1913. Dec 19. 1914. Feb 17. Mar 17-23-27. Apr 7-21-28. May 1-11-18-27. June 1.  
 { During erection on board vessel --- }  
 Total No. of visits 13.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 7/4/14 Slides 7/4/14 Covers 7/4/14 Pistons 7/4/14 Rods 7/4/14  
 Connecting rods 27/3/14 Crank shaft 28/4/14 Thrust shaft 28/4/14 Tunnel shafts \_\_\_\_\_ Screw shaft 28/3/14 Propeller 27/3/14  
 Stern tube 27/3/14 Steam pipes tested ✓ Engine and boiler seatings ✓ Engines holding down bolts ✓  
 Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam ✓  
 Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓  
 Material of Crank shaft *Steel* Identification Mark on Do. *28/4/14* Material of Thrust shaft *Steel* Identification Mark on Do. *28/4/14*  
 Material of Tunnel shafts *iron* Identification Marks on Do. \_\_\_\_\_ Material of Screw shafts *iron* Identification Marks on Do. *28/3/14*  
 Material of Steam Pipes \_\_\_\_\_ Test pressure \_\_\_\_\_

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

*These engines & boilers have been built under special survey the materials and workmanship are of good description. They have now been forwarded to Dundee where they will be fitted on board the vessel.*

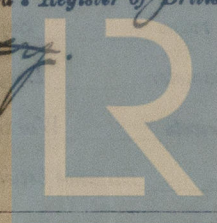
The amount of Entry Fee £ \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ When applied for, \_\_\_\_\_  
 Special £ \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_  
 Donkey Boiler Fee £ \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ When received, \_\_\_\_\_  
 Travelling Expenses (if any) £ \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

Committee's Minute GLASGOW 23 JUN. 1914

Assigned *Deferred for completion*

*A. M. McKeand* & *J. Davery*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

FRI. AUG. 14. 1914



Lloyd's Register Foundation

Rpt. 5a.

Date of writing

No. in Reg. B

Master

Engine

Boilers

Register

MUI

(Letter)

Boiler

No. of

safety

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Small

Material

Design

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Boiler No. 2

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To the Secretar

Lloyd's

GLASGOW

Certificate (if required) to be sent to

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

22/6/14