

Received at London Office

WED. NOV. 20. 1912

Date of writing Report

19

When handed in at Local Office

19/11/12 Port of Hull

No. in Survey held at

Hull

Date, First Survey

Aug 16<sup>th</sup>

Last Survey

Nov 7<sup>th</sup> 1912

Reg. Book.

Ship on the S.S. K. "LUNEDA"

Master

Built at

Selby

By whom built

Cochran &amp; Sons

When built

1912

Engines made at

By whom made

when made

1912

Boilers made at

Hull

By whom made

Messrs. Charles R. Holmes &amp; Co. Ltd.

when made

1912

Registered Horse Power

Owners Lancashire Steam Traction Co. Ltd.

Port belonging to

Hullwood

Nom. Horse Power as per Section 28

81

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

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

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

12 $\frac{3}{4}$ " - 22" - 36"

Length of Stroke

24"

Revs. per minute

109

Dia. of Screw shaft

as per rule

4 $\frac{3}{4}$ "

Material of screw shaft

J

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

If the liner is in more than one length are the joints burned

Yes

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

If two

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

Length of stern bush

36"

Dia. of Tunnel shaft

as per rule

6 $\frac{1}{4}$ " - 6 $\frac{3}{4}$ "

Dia. of Crank shaft journals

as per rule

4 $\frac{1}{2}$ "

Dia. of Crank pin

4 $\frac{1}{2}$ "

Size of Crank webs

4 $\frac{3}{4}$ " x 14"

collars

4 $\frac{1}{4}$ "

Dia. of screw

9'-0"

Pitch of Screw

11'-0"

No. of Blades

4

State whether moveable

No

Total surface

29 sq

No. of Feed pumps

1

Diameter of ditto

2 $\frac{3}{8}$ "

Stroke

14 $\frac{1}{2}$ "

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

1

Diameter of ditto

2 $\frac{3}{8}$ "

Stroke

14 $\frac{1}{2}$ "

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

1

Sizes of Pumps

6" x 4 $\frac{1}{2}$ " x 6"

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

In Engine Room

Two 2" - one forward &amp; one aft

In Holds, &amp;c.

One 2" 10" duct with, one 2" 10" main

hold, one 2" 10" forecastle &amp; bilge suction from all bilges with discharge on deck

No. of Bilge Injections

1

sizes

2"

Connected to condenser, or to circulating pump

pump

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

2 $\frac{1}{2}$ " 4"

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

0

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

2" old cuttings

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

Yes

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

Yes

Dates of examination of completion of fitting of Sea Connections

12.9.12

of Stern Tube

12.9.12

Screw shaft and Propeller

12.9.12

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

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

Manufacturers of Steel

Hullwood &amp; Co. Ltd. of Hull

Total Heating Surface of Boilers

1340 sq

Is Forced Draft fitted

No

No. and Description of Boilers

One up. multi. single ended.

Working Pressure

200 lbs.

Tested by hydraulic pressure to

400 lbs.

Date of test

24.10.12

No. of Certificate

1936

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

45.6 sq

No. and Description of Safety Valves to

each boiler

Two Spring

Area of each valve

4.9 sq

Pressure to which they are adjusted

205 lbs.

Smallest distance between boilers or uptakes and bunkers or woodwork

6"

Mean dia. of boilers

13'-6"

Length

11'-0"

Material of shell plates

S

Thickness

1 $\frac{1}{2}$ "

Range of tensile strength

29 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

No. 8.2

long. seams

No. 8.5.7.9

Diameter of rivet holes in long. seams

1 $\frac{1}{2}$ "

Pitch of rivets

8 $\frac{3}{4}$ "

Lap of plates or width of butt straps

16 $\frac{5}{8}$ "

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

204 lbs.

Size of manhole in shell

16" x 12"

Size of compensating ring

4" x 1 $\frac{3}{8}$ "

No. and Description of Furnaces in each boiler

3 plain

Material

S

Outside diameter

3'-4"

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

Weld

No. of strengthening rings

0

Working pressure of furnace by the rules

205 lbs.

Combustion chamber plates: Material

S

Thickness: Sides

2 $\frac{3}{8}$ "

Back

2 $\frac{3}{8}$ "

Top

2 $\frac{3}{8}$ "

Bottom

2 $\frac{3}{8}$ "

Pitch of stays to ditto: Sides

8 $\frac{1}{2}$ " x 8 $\frac{1}{2}$ "

Back

8" x 10 $\frac{1}{2}$ "

Top

8 $\frac{1}{2}$ " x 11"

If stays are fitted with nuts or riveted heads

No

Material of stays

S

Diameter at smallest part

2.4"

Area supported by each stay

100 sq

Working pressure by rules

215 lbs.

End plates in steam space:

Material

S

Thickness

1 $\frac{3}{8}$ "

Pitch of stays

18" x 18 $\frac{1}{2}$ "

How are stays secured

No. 7. 22

Working pressure by rules

201 lbs.

Diameter at smallest part

4.5"

Area supported by each stay

333 sq

Working pressure by rules

234 lbs.

Material of Front plates at bottom

S

Thickness

1 $\frac{5}{8}$ "

Material of Lower back plate

S

Thickness

2 $\frac{3}{8}$ "

Greatest pitch of stays

14 $\frac{1}{2}$ " x 8"

Working pressure of plate by rules

204 lbs.

Diameter of tubes

3 $\frac{1}{2}$ "

Pitch of tubes

3" x 5 $\frac{1}{2}$ "

Material of tube plates

S

Thickness: Front

1 $\frac{1}{2}$ "

Back

1 $\frac{1}{2}$ "

Mean pitch of stays

10 $\frac{1}{2}$ "

Pitch across wide water spaces

14" 8.4

Working pressures by rules

315 lbs.

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

12" x 1 $\frac{1}{2}$ "

Length as per rule

3'-2 $\frac{3}{4}$ "

Distance apart

11"

Number and pitch of stays in each

3-8 $\frac{1}{2}$ "

Working pressure by rules

206 lbs.

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

End plates: Thickness

How stayed

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

If not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship?



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
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment
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	Per centage of strength of joint
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:— Two each top & bottom end connecting rod bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set each feed & lift pump valves, iron of various sizes, a quantity of assorted bolts, nuts &c.

The foregoing is a correct description,

P. PRO. CHARLES D. HOLMES & CO. LTD.

Manufacturer.

*Charles D. Holmes* DIRECTOR

Dates of Survey while building: During progress of work in shops -- 1912: Aug 16, 29 Sep 11, 12, 19, 23, 25 Oct 2, 3, 8, 10, 16, 18, 23, 24 Nov 1, 2, 5  
During erection on board vessel -- Nov 7.  
Total No. of visits 19

Is the approved plan of main boiler forwarded herewith *yes*

Dates of Examination of principal parts—Cylinders 8.10.12 Slides 24.10.12 Covers 24.10.12 Pistons 18.10.12 Rods 16.10.12  
Connecting rods 16.10.12 Crank shaft 2.10.12 Thrust shaft 18.10.12 Tunnel shafts Screw shaft 11.9.12 Propeller 11.9.12  
Stern tube 11.9.12 Steam pipes tested 2.11.12 Engine and boiler seatings 12.9.12 Engines holding down bolts 1.11.12  
Completion of pumping arrangements 4.11.12 Boilers fixed 5.11.12 Engines tried under steam 5.11.12  
Main boiler safety valves adjusted 5.11.12 Thickness of adjusting washers *Forward 3/8" 1/2" 5/8"*  
Material of Crank shaft *I* Identification Mark on Do. *N° 941.60* Material of Thrust shaft *I* Identification Mark on Do. *N° 941.60*  
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts *I* Identification Marks on Do. *N° 941.60*  
Material of Steam Pipes *Solid drawn copper* Test pressure *400 lbs per sq. inch hydraulic*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines & boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials & workmanship are sound & good. The boiler tested by hydraulic pressure, & with the engines covered on board & tested under steam they are now in good order & safe working condition, & respectfully submitted as being eligible in my opinion to be classed with the notation of 'L.M.C. 11.12' in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 11.12

*E.J.S.*  
20.11.12.

*A.R.R.*

The amount of Entry Fee	£ 1 : 0 :	When applied for,	19.11.12
Special	£ 12 : 3 :	When received,	29.11.12
Donkey Boiler Fee	£ :		
Travelling Expenses (if any)	£ 8 : 2 :		

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

Committee's Minute

FRI. NOV. 22. 1912

Assigned

+ L.M.C. 11.12

MACHINERY CERTIFICATE WRITTEN.



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