

# REPORT ON MACHINERY.

No. 1583

Port of

Sheffield

Received at London Office

WED. 12 SEP 1906

Survey held at

Date, first Survey

Last Survey

19

on the

Lord Elgen

(Number of Visits)

Gross  
Tons  
Net

Built at

By whom built

When built

ade at

By whom made

when made

ude at

By whom made

when made

Horse Power

Owners

Port belonging to

ver as per Section 28

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

&c.—Description of Engines

No. of Cylinders

No. of Cranks

ers

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule  
as fitted

Material of  
screw shaft

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

Is the after end of the liner made water tight

er boss

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

If the liner does not fit tightly at the part

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

If two

l, is the shaft lapped or protected between the liners

Length of stern bush

shaft  
as per rule  
as fitted

Dia. of Crank shaft journals

as per rule  
as fitted

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

Total surface

mps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

mps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Engines

Sizes of Pumps

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

m

In Holds, &c.

tions sizes

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

ns with the sea direct on the skin of the ship

Are they Valves or Cocks

efficiently 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

ed 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

carried through the bunkers

How are they protected

boilers, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times

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

ation of completion of fitting of Sea Connections

of Stern Tube

Screw shaft and Propeller

shaft Tunnel watertight

Is it fitted with a watertight door

worked from

&c.—(Letter for record

Manufacturers of Steel

Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

ure

Tested by hydraulic pressure to

Date of test

No. of Certificate

be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

length of longitudinal joint

rivets  
plate

Working pressure of shell by rules

Size of manhole in shell

ing ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

part  
top  
bottom

Thickness of plates  
crown  
bottom

Description of longitudinal joint

No. of strengthening rings

of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

lest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

aterial of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

de water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

r at centre

Length as per rule

Distance apart

Number and pitch of stays in each

e by rules

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

ith rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

ssure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

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VERTICAL DONKEY BOILER— Manufacturers of Steel *Clydebank Steel Co.*  
 No. *001* Description *Vertical, two x tubes*  
 Made at *Bradley* By whom made *The Cradley Boiler Co.* When made *1906* Where fixed *✓*  
 Working pressure *100 lb* Tested by hydraulic pressure to *200 lb* Date of test *29/5/08* No. of Certificate *92* Fire grate area *9.6 sq* 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 *4'0"* Length *8'6"*  
 Material of shell plates *Steel* Thickness *3/8"* Range of tensile strength *26/30* Descrip. of riveting long. seams *lap, double*  
 Dia. of rivet holes *13/16"* Whether punched or drilled *drilled* Pitch of rivets *2 1/2"* Lap of plating *4"* Per centage of strength of joint Rivets *79.7*  
 Working pressure of shell by rules *20 lb* Thickness of shell crown plates *1/2"* Radius of do. *4'0"* No. of stays to do. *—* Dia. of stays *—* Plates *75.0*  
 Diameter of furnace Top *3'2"* Bottom *3'6"* Length of furnace *4'9"* Thickness of furnace plates *7/16"* Description of joint *welded*  
 Working pressure of furnace by rules *110 lb* Thickness of furnace crown plates *7/16"* Stayed by *radius*  
 Diameter of uptake *9"* Thickness of uptake plates *7/16"* Thickness of water tubes *3/8"* Dates of survey *—*  
 SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,  
 THE CRADLEY BOILER CO Manufacturer.

Dates of Survey while building  
 During progress of work in shops—  
 During erection on board vessel—  
 Total No. of visits

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods  
 Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller  
 Stern tube 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 Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.  
 Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.  
 Material of Steam Pipes Test pressure

General Remarks (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under special survey, the materials & workmanship are sound & good & the boiler is eligible in my opinion to have a working pressure of 100 lb per square inch.*

*It is submitted that no further action be taken on this report.*

*Rms*  
*12.9.08*

The amount of Entry Fee... £ : : When applied for, 19...  
 Special ... £ : :  
 Donkey Boiler Fee ... £ 2 : 2 : When received, 19...  
 Travelling Expenses (if any) £ : 4/11 : 19...

Committee's Minute

Assigned

*R. F. Morton*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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