

REPORT ON MACHINERY.

No. 1583

Lw 58690

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)

Built at

By whom built

Tons } Gross
 } Net
When built

made at

By whom made

when made

made at Bradley Heath

By whom made

The Crossley Brothers 6-6413

when made

1906

Horse Power

Owners

Port belonging to

Power 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

Revs.

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

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

If the liner does not fit tightly at the part

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

If two

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

Revs.

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

Revs.

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

in

In Holds, &c.

Connections 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

Connections with the sea direct on the skin of the ship

Are they Valves or Cocks

Connections 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

Connections 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

Connections carried through the bunkers

How are they protected

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

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

Connections of completion of fitting of Sea Connections

of Stern Tube

Screw shaft and Propeller

Connections 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

Boiler

Tested by hydraulic pressure to

Date of test

No. of Certificate

Boiler to 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

Connections 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

Long ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Part

Thickness of plates
top
bottom

Description of longitudinal joint
crown
bottom

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Working pressure 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

Thinnest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Material 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

Working pressure of water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Distance apart

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

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

Working pressure 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



Lloyd's Register
Foundation
LIV 514 0165

VERTICAL DONKEY BOILER— Manufacturers of Steel *Clydevale Steel Co.*
 No. *101* 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 *29/8/06* No. of Certificate *92* Fire grate area *9.6 sq ft* 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* Plates *75.0*
 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
 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 *17/32"* 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 lbs per square inch.*)

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

Rms
12.9.06

Certificate (if required) to be sent to

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

Committee's Minute

Assigned

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



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