

REPORT ON MACHINERY.

No. 9281

WED. 29 MAR. 1916

Received at London Office

of writing Report

When handed in at Local Office

28/3/16 Port of Middlesbrough

in Survey held at

Middlesbrough

Date, First Survey Dec. 13, 1915

Last Survey March 19, 1916

Book

5 on the

S.S. Conway Castle

Tons

Gross
Net

When built 1916

ater

Built at

Middlesbrough

By whom built

Smith's Dock Co. Ltd

ines made at

Middlesbrough

By whom made

Smith's Dock Co. Ltd (No. 122)

when made 1916

ilers made at

Newcastle

By whom made

Palmer's S. B. Co. Ltd

when made 1916

gistered Horse Power

Owners

Castle S. Crawlers, Ltd

Port belonging to Swansea

m. Horse Power as per Section 28

87

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

GINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

ia. of Cylinders

12 1/2, 21, 35

Length of Stroke

26

Revs. per minute

103

Dia. of Screw shaft

as per rule 7.55
as fitted 7.5

Material of screw shafts Iron

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

the propeller boss

yes

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

yes

If two

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

yes

Length of stern bush 2'-10"

ia. of Tunnel shaft

as per rule 6.57
as fitted 6.3

Dia. of Crank shaft journals

as per rule 6.9
as fitted 7.8

Dia. of Crank pin

7.8

Size of Crank webs

10 3/4 x 4 9/16

Dia. of thrust shaft under

ollars

7.8

Dia. of screw

9.6

Pitch of Screw

11.12

No. of Blades

4

State whether moceable

No

Total surface 35.2 sq

No. of Feed pumps

2

Diameter of ditto

2 1/2

Stroke

12

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

2 1/2

Stroke

12

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

Two

Sizes of Pumps

6x4x6

6x3x6

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

in Engine Room

Two

In Holds, &c.

Two

Ejector suction from engine room + hold + discharge overboard.

No. of Bilge Injections

1

sizes

3 1/2

Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size

Yes 2"

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

None

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

binch pipes + hold suction

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

3. 2. 16

of Stern Tube

3. 2. 16

Screw shaft and Propeller

3. 2. 16

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

yes

worked from

OILERS, &c.—(Letter for record

)

Manufacturers of Steel

Total Heating Surface of Boilers

1619 sq

Is Forced Draft fitted

yes

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

Area of each valve

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
plate 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

or own
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

End plates in steam space

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material

Thickness

Pitch of stays

How are stays secured

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

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

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

Distances 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

holes

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

Thickness

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

If stiffened with rings

Distance between rings

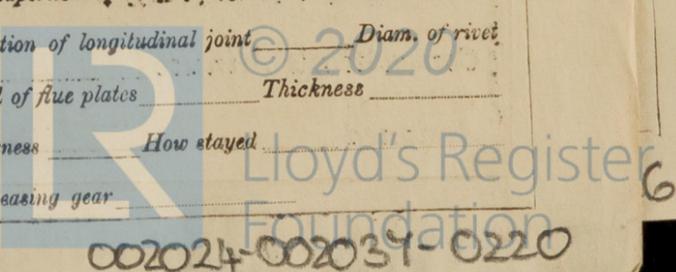
Working pressure by rules

End plates: Thickness

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear



002024-002031-0220

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: *Two top & two bottom-end connecting rod bolts & nuts. Two main bearing bolts & nuts. One set of coupling bolts & nuts. One set of feed and bilge pump valves. Main & donkey feed check valves. Assorted bolts & nuts etc.*

The foregoing is a correct description. *J. Smiths Dock Co Ltd*
A. Scott
Manufacturer.

Dates of Survey while building: During progress of work in shops - - - *1915 Dec. 13, 15, 16, 20, 24, Jan. 7, 11, 14, 18, 19, 21, 22, 25, Feb. 3, 5, 7, 9, 16, 18, 23, 24, Mar. 2, 3, 8, 13, 14, 16, 17.*
During erection on board vessel - - -
Total No. of visits *29.*

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders *7.1.16* Slides *7.7.16* Covers *7.2.16* Pistons *11.1.16* Rods *11.1.16*
Connecting rods *3.2.16* Crank shaft *24.9.15* Thrust shaft *17.11.15* Tunnel shafts *None* Screw shaft *26.11.15* Propeller *21.1.16*
Stern tube *21.1.16* Steam pipes tested *3.3.16* Engine and boiler seatings *3.2.16* Engines holding down bolts *2.3.16*
Completion of pumping arrangements *14.3.16* Boilers fixed *17.3.16* Engines tried under steam *14.3.16*
Main boiler safety valves adjusted *14.3.16* Thickness of adjusting washers *PV 1/4" SV 1/4"*

Material of Crank shaft *Steel* Identification Mark on Do *4132GAM* Material of Thrust shaft *Iron* Identification Mark on Do *4132GAM*
Material of Tunnel shafts *None* Identification Marks on Do. Material of Screw shafts *Iron* Identification Marks on Do *4132GAM*
Material of Steam Pipes *Solid drawn copper* Test pressure *360 lbs*

Is an installation fitted for burning oil fuel *No* Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *S.S. "Harfat Castle" Ind. Rpt.*

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

The Engines of this vessel have been constructed under Special Survey, and are of good material and workmanship.
The Engines and Boiler of this vessel have been fitted and secured on board in accordance with the Rules. They are now in good working condition and in my opinion eligible to have the notation of +LMC 3.16 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + LMC 3.16

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 7 : 13 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *28/3/1916*
When received, *1916*

J. W. D.
30/3/16
A. Kerr
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute *FRI 31 MAR 1916*
Assigned *+LMC 3.16*

MASTERS' CERTIFICATE WRITTEN.

