

Rpt. 4.

## REPORT ON MACHINERY.

No. 83241

SUNDERLAND RPT. NO. 27922.

Received at London Office 29 JUN 1920

Date of writing Report 29 JUN 1920

When handed in at Local Office 29 JUN 1920

Port of London

No. in Survey held at  
Reg. Book.

Shoreham

Date, First Survey Mar 10th

Last Survey May 28th 1920

(Number of Visits 3)

on the

Concrete Tug "Cretblock"

Tons { Gross  
Net

Master

Built at Shoreham

By whom built

John van Niche

When built 1920

Engines made at

Bradford

By whom made

Messrs. E. Danks &amp; Co. when made 1920

Boilers made at

Oldbury

By whom made

Messrs. E. Danks &amp; Co. when made 1920

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

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

No. of Cylinders

No. of Cranks

Dia. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule

Material of

as fitted

screw shaft

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

No

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

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

3' 4"

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

collars

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

Total surface

No. of Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Donkey Engines

2 Sizes of Pumps 6" x 4" x 6", 5" x 5" x 6" Dup

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

In Engine Room To be fitted at Sunderland

In Holds, &amp;c.

No. of Bilge Injections

sizes

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

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

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

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

Is Forced Draft fitted

Yes

No. and Description of Boilers

Two Single Ended.

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

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

Thickness of plates

crown

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

Area 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

Area 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

Steam dome: description of joint to shell

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

## SUPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

007150-007160-0173



IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

NO

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
During progress of work in shops --  
During erection on board vessel --  
Total No. of visits 3

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

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 28/5720 Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Completion of fitting sea connections 14/5720 Stern tube 28/5720 Screw shaft and propeller 28/5720

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

Is an installation fitted for burning oil fuel 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 If so, state name of vessel

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

The stern tube, tail shaft, propeller, sea connections, discharge valves, donkey pumps, evaporator & forced draught fan have been satisfactorily fitted in place.

The engines & boilers are to be installed by Messrs MacColl & Pollock, Ltd., Sunderland.

The wiring for the electric light has been put in here but the installation is to be completed at Sunderland Electricians:—Telford Grier & Mackay, Ltd., Glasgow.

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

H Sanderson-Smith

Engineer Surveyor to Lloyd's Register of Shipping.

Ed. W. Hutton

Committee's Minute FRI. SEP. 17 1920

Assigned

+ Lm 69.20

J.D.



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