

REPORT ON MACHINERY

No. 11502
THU. 10 MAR. 1921

Date of writing Report *7th March 1921* When handed in at Local Office *9-3-1921* Port of *Antwerp*
 No. in Survey held at *Hoboken* Date, First Survey *19th Oct. 20* Last Survey *2nd March 1921*
 Reg. Book. *717* on the *S/S "WINSUM."* *5/s No 74* (Number of Visits *13*)
 Master *H. D. Teensma* Built at *Hoboken, Belgium* By whom built *Antwerp Ing. Co. Soc. Anon.* When built *1920*
 Engines made at *Sunderland* By whom made *H. E. Marine Ing. Co. Ltd. (No 2178)* when made *1920*
 Boilers made at *do.* By whom made *do.* when made *1920*
 Registered Horse Power Owners *Stoomvaart Maatschappij Oostzee* Port belonging to *Amsterdam*
 Nom. Horse Power as per Section 28 *320* Is Refrigerating Machinery fitted for cargo purposes *No.* Is Electric Light fitted *yes.*

ENGINES, &c.—Description of Engines

No. of Cylinders

No. of Cranks

Dia. of Cylinders

Length of Stroke

Revs. per minute *81*

Dia. of Screw shaft

as per rule

Material of

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

Is the after end of the liner made water tight

In the propeller boss If the liner is in more than one length are the joints

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

Dia. of Tunnel shaft

as per rule

Dia. of

as per rule

Dia. of Crank pin

Size of Crank webs

Collars

as fitted

Dia. of

as fitted

Dia. of

Size of Crank webs

Dia. of thrust shaft under

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

Sizes of Pumps

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

In Engine Room

4-3"

Donkey

Sue. 3 1/2"

and 1-3"

for oil

In Holds, &c.

No 1 hold

2-3"

No 2 hold

2-3"

No 3

hold

2-3"

and Tunnel well

1-2 1/2" suction

No. of Bilge Injections

1 size

7"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

yes. 3 1/2"

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 valves & cocks

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 & below

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

Bilge suction pipes

How are they protected

2 1/2" wood box & 3/8" steel box

outside

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.

Is the Screw Shaft Tunnel watertight

yes.

Is it fitted with a watertight door

yes.

worked from

Cylinder platform.

OILERS, &c.—(Letter for record

(S)

Manufacturers of Steel

Total Heating Surface of Boilers

4496 sq ft

Is Forced Draft fitted

yes.

No. and Description of Boilers

Two single ended marine

Working Pressure

180 lbs.

Tested by hydraulic pressure to

360 lbs.

Date of test

21.5.20

No. of Certificate

3690

Can each boiler be worked separately

yes.

Area of fire grate in each boiler

53 sq ft

No. and Description of Safety Valves to

each boiler

2 direct spring

Area of each valve

9.62 sq in

Pressure to which they are adjusted

185 lbs.

Are they fitted with easing gear

yes.

Smallest distance between boilers or uptakes and bunkers or woodwork

2'-0"

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

as 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

3 c.f.

Material

Outside diameter

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

bottom

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

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Is a Safety Valve fitted to each

IS A DONKEY BOILER FITTED? *yes.*

If so, is a report now forwarded? *yes.*

SPARE GEAR. State the articles supplied:— *Two connecting rod top & bottom end bolts & nuts, 2 main bearing bolts & nuts, 1 set of coupling bolts & nuts, 1 set each of feed & bilge pump valves, 1 set of piston rings, a bag of assorted bolts & nuts, iron rods of various sizes, 1 propeller, 1 tail shaft, bottom end brasses, H.P. piston valve rings, & other detail spare parts.*

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

Donkey boiler safety valve washers:— F.V. = $\frac{1}{2}$ " A.V. = $2\frac{3}{32}$ "
values adjusted to 100 lbs on 9.2.21.

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

" " " donkey " " *yes.*

Dates of Examination of principal parts—Cylinders ✓ Slides ✓ Covers ✓ Pistons ✓ Rods ✓

Connecting rods ✓ Crank shaft ✓ Thrust shaft ✓ Tunnel shafts ✓ Screw shaft *19.10.20* Propeller *19.10.20*

Stern tube *19.10.20* Steam pipes tested *10.1.21.* Engine and boiler seatings *19.10.20* Engines holding down bolts *10.1.21.*

Completion of pumping arrangements *23.2.21.* Boilers fixed *26.1.21.* Engines tried under steam *2.3.21.*

Completion of fitting sea connections *25.10.20.* Stern tube *25.10.20.* Screw shaft and propeller *25.10.20.*

Main boiler safety valves adjusted *9.2.21.* Thickness of adjusting washers *P. Boiler F.V. = $\frac{1}{4}$ " A.V. = $\frac{7}{16}$ " S. Boiler F.V. = $\frac{1}{4}$ " A.V. = $\frac{7}{16}$ "*

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 *not iron.* ✓ Test pressure *540 lbs per sq. in.*

Is an installation fitted for burning oil fuel *yes.* Is the flash point of the oil to be used over 150°F. *yes.*

Have the requirements of Section 49 of the Rules been complied with *yes.*

Is this machinery duplicate of a previous case *not known* If so, state name of vessel ✓

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

The workmanship & materials are good.

The machinery & boilers have been fitted on board this vessel under Special Survey, tried under full working conditions, & found satisfactory.

The machinery of this vessel is eligible in my opinion to have the notation + L.M.C. 3.21. Also, fitted to burn oil fuel 3.21, F.P. above 150°F.

NOTE:— A report on the Electric light will be forwarded in due course.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 3.21. F.D. CL.

Fitted for oil fuel 3.21. F.P. above 150°F.

The amount of Entry Fee ... £ : : When applied for, 8-3-1921

$\frac{1}{5}$ Special ... £ 140-12-0

$\frac{1}{5}$ " in France ... £ 760-0-0

Donkey Boiler Fee ... £ 760-0-0

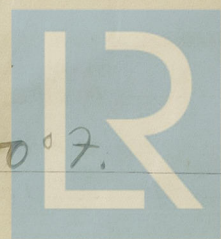
Travelling Expenses (if any) £ : : When received, 14/3/21

Committee's Minute FRI. MAR 18 1921

Assigned + L.M.C. 3.21 F.D. C.L.

Fitted for oil fuel F.P. above 150°F.

MACHINERY DEPT.
WRITTEN



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