

## REPORT ON MACHINERY

No. 2042

MON. 25 OCT. 1916

Received at London Office

MON. 25 OCT. 1916

Date of writing Report 16 October 1916 When handed in at Dock Office

Port of Rotterdam

No. in Survey held at Flushing  
Reg. Book.Date, First Survey 10 April 1914 Last Survey 14 October 1915  
(Number of Visits 33)

on the

Steel Sloop Steamer

Ecuador

Tons

Gross 548 1/2

Net 304 1/2

Master A. R. Nyboer Built at Flushing

By whom built

Koninklijke West Indische Maildienst

When built

1914-1915

Engines made at Flushing

By whom made

Koninklijke West Indische Maildienst

when made

1914-1915

Boilers made at

Do.

By whom made

Do.

when made

1914-1915

Registered Horse Power 624

Owners

Koninklijke West Indische Maildienst

Port belonging to

Amsterdam

Nom. Horse Power as per Section 28 624

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

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

Triple expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders

29 x 44 x 44

Length of Stroke

48

Revs. per minute

94

Dia. of Screw shaft

as per rule 15 1/4

Material of

Steel

Is 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

in the propeller boss Yes

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

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

liners are fitted, is the shaft lapped or protected between the liners One length

Length of stern bush 5' 4"

Dia. of Tunnel shaft

as per rule 14 1/4

Dia. of Crank shaft journals

as per rule 15 1/4

Dia. of Crank pin

15 1/4

Size of Crank webs

10 x 6 3/4

Dia. of thrust shaft under

collars 15 1/4

Dia. of screw

18 9"

Pitch of Screw

14-0"

No. of Blades

4

State whether moveable

Yes

Total surface

88 sq

No. of Feed pumps

2

Diameter of ditto

4"

Stroke

15"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

4"

Stroke

15"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

C. Chapman 12 x 9 x 21

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

2

Turbo pumps 12 x 9 x 21

In Engine Room

2 in 12 of 3 1/2"

In Holds, &amp;c.

of 3 1/2"

2 in 12 of 3 1/2"

In Holds, &amp;c.

No. 1, 2, 3 and 4 holds, two suction

of 3 1/2"

2 in 12 of 3 1/2"

In Holds, &amp;c.

No. 1, 2, 3 and 4 holds, two suction

of 3 1/2"

2 in 12 of 3 1/2"

No. of Bilge Injections

1

Connected to condenser, or to circulating pump

No

Is a separate Donkey Suction fitted in Engine room

Yes

Size of

12 x 9 x 21

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

Yes

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

part of suction for holds

How are they protected

Bored in

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

16/2

of Stern Tube

16/2

Screw shaft and Propeller

26/2

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

upper platform

BOILERS, &amp;c.—(Letter for record

2)

Manufacturers of Steel

Schulth. Kramel. Phamier. M. H. de Vries

Total Heating Surface of Boilers

9460 sq

Is Forced Draft fitted

Yes

No. and Description of Boilers

4

horizontal marine boilers

Working Pressure

180 lb

Tested by hydraulic pressure to

360 lb

Date of test

16.10.14

No. of Certificate

573

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

62 sq

No. and Description of Safety Valves to

each boiler

2

Area of each valve

9 1/2 sq

Pressure to which they are adjusted

180 lb

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

12"

Mean dia. of boilers

14 1/2"

Length

11' 5"

Material of shell plates

Steel

Thickness

1 1/8"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

all round by

long. seams

all round by

Diameter of rivet holes in long. seams

1 1/4"

Pitch of rivets

9 9/16"

Lap of plates or width of butt straps

20 1/2"

Per centages of strength of longitudinal joint

92 1/2%

Working pressure of shell by rules

209 lb

Size of manhole in shell

12 x 14"

Size of compensating ring

8 1/2 x 1"

No. and Description of Furnaces in each boiler

3

Material

Steel

Outside diameter

4' 1"

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

Welded

No. of strengthening rings

2

Working pressure of furnace by the rules

182 lb

Combustion chamber plates: Material

Steel

Thickness: Sides

1/16"

Back

1/16"

Top

1/16"

Bottom

1"

Pitch of stays to ditto: Sides

8 x 7 1/4"

Back

7 1/4 x 7 1/4"

Top

8 x 8"

If stays are fitted with nuts or riveted heads

Yes

Working pressure by rules

201 lb

Material of stays

Steel

Diameter at smallest part

1 1/8"

Area supported by each stay

64"

Working pressure by rules

210 lb

End plates in steam space

Material

Steel

Thickness

2 x 1/8"

Pitch of stays

15 x 16 1/4"

How are stays secured

by nuts, with working pressure by rules

389 lb

Material of stays

Steel

Diameter at smallest part

2 1/4"

Area supported by each stay

248"

Working pressure by rules

206 lb

Material of Front plates at bottom

Steel

Thickness

1 1/8"

Material of Lower back plate

Steel

Thickness

1 1/8"

Greatest pitch of stays

13 1/2 x 7 1/4"

Working pressure of plate by rules

188 lb

Diameter of tubes

3"

Pitch of tubes

4 1/16"

Material of tube plates

Steel

Thickness: Front

1/8"

Back

1/8"

Mean pitch of stays

10 1/2"

Pitch across wide water spaces

15"

Working pressures by rules

254

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

8 1/2 x 1 x 1/4"

Length as per rule

2 7/8"

Distance apart

8"

Number and pitch of stays in each

508"

Working pressure by rules

194 lb

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Steel

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules



If so, is a report now forwarded?

*The foregoing is a correct description.*

**Scheepsbouwen en Werktuigenfabriek**

*Manufacturer.*

Is the approved plan of main boiler forwarded herewith  
~~also shipping, pump, air, engine.~~  
 " " " donkey " " "

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 e

Is this machinery duplicate of a previous case no ✓ If so, state name of vessel.

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

It is submitted that  
this vessel is eligible for  
THE RECORD + LMC 10.15 F.D

*Two.*

25/10/15

*P. N. Bunschi.*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

*Assigned*

**MACHINERY CERTIFICATE  
WRITTEN.**



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Foundation