

## REPORT ON MACHINERY.

No. 4405-6  
MON. MAY. 45 1924

Received at London Office

Date of writing Report 29 April 1924 When handed in at Local Office

19 Port of Amsterdam

No. in Survey held at Amsterdam  
Reg. Book.

Date, First Survey 13 November 23 Last Survey 15 April 1924

on the Steel Twin Screw Steamer

"Julietta"

(Number of Visits 38)

Tons } Gross 2746.04  
Net 1566.88

Master

Built at Amsterdam

By whom built credited Scheepswaard m/y

When built 1924

Engines made at Amsterdam

By whom made Werkspoor

when made 1914

Boilers made at

By whom made

when made

Registered Horse Power 1600

Owners Curacaoche Scheepswaard m/y

Port belonging to Curacao

Nom. Horse Power as per Section 28 236

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

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

Triple expansion (Twin Screw)

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders  $12\frac{3}{4} \times 10\frac{1}{2} \times 5\frac{3}{8}$  Length of Stroke  $24\frac{3}{8}$  Revs. per minute 180

Dia. of Screw shaft

as per rule  $7.00 \times \frac{1}{4}$ 

Material of screw shaft

Steel

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 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

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

Length of stern bush  $28\frac{1}{2}$ Dia. of Tunnel shaft as per rule  $6.43 \times \frac{1}{4}$  as fitted  $6\frac{1}{4}$ Dia. of Crank shaft journals as per rule  $6.75 \times \frac{1}{4}$  as fitted  $6\frac{3}{4}$ Dia. of Crank pin  $4\frac{1}{2}$ Size of Crank webs  $4\frac{1}{2} \times 5$ 

Dia. of thrust shaft under

collars Dia. of screw  $8\frac{1}{2}$  Pitch of Screw  $4\frac{1}{2}$ 

No. of Blades 4

State whether moveable

Total surface  $32\frac{1}{2}$ No. of Feed pumps 2 Diameter of ditto  $5\frac{3}{8}$  Stroke  $4\frac{1}{2}$ 

Can one be overhauled while the other is at work

No. of Bilge pumps 2 Diameter of ditto  $5\frac{3}{8}$  Stroke  $4\frac{1}{2}$ 

Can one be overhauled while the other is at work

No. of Donkey Engines 8 F 2.1.0 Sizes of Pumps 2

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

In Engine Room one  $4\frac{1}{2}$  and three  $2\frac{1}{2}$ In Holds, &c. One  $3\frac{1}{2}$  forehold; two  $2\frac{1}{2}$  peak etc.No. of Bilge Injections 1 sizes  $4\frac{1}{2}$  Connected to condenser, or to circulating pumpIs a separate Donkey Suction fitted in Engine room & size  $4\frac{1}{2}$ 

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are all connections with the sea direct on the skin of the ship

Are they Valves or Cocks Both

Are they fixed 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 above

Are they each fitted 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

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 S.)

Manufacturers of Steel David Colville, London

Total Heating Surface of Boilers  $4168\frac{1}{2}$  ft. Is Forced Draft fitted

No. and Description of Boilers 2 Horizontal marine boilers

Working Pressure 180 lb. Tested by hydraulic pressure to 310 lb.

Date of test 28.3.24

No. of Certificate 1504

Can each boiler be worked separately

Area of fire grate in each boiler oil burning

No. and Description of Safety Valves to

each boiler 2 Spring loaded

Area of each valve  $5.94$  sq. in.

Pressure to which they are adjusted 180 lb.

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork  $4\frac{1}{2}$ Mean dia. of boilers  $15\frac{1}{2}$ Length  $12\frac{1}{2}$ 

Material of shell plates Steel

Thickness  $1\frac{1}{2}$  Range of tensile strength 18-22 tons

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams all riveted

long. seams all riveted

Diameter of rivet holes in long. seams  $1\frac{1}{16}$ Pitch of rivets  $8\frac{1}{2}$ 

Lap of plates or width of butt straps 18

Per centages of strength of longitudinal joint

rivets 92

plate 85.3

Working pressure of shell by rules 185 lb.

Size of manhole in shell  $12 \times 16$ Size of compensating ring  $1\frac{1}{2} \times 1\frac{1}{2} \times 8\frac{1}{2}$ 

No. and Description of Furnaces in each boiler 2 Bull suspension

Material Steel Outside diameter  $5\frac{1}{2}$ 

Length of plain part top

Thickness of plates crown  $2\frac{1}{2}$ bottom  $1\frac{1}{2}$ 

Description of longitudinal joint Welded

No. of strengthening rings 2

Working pressure of furnace by the rules 155 lb.

Combustion chamber plates: Material Steel Thickness: Sides  $\frac{3}{8}$ Back  $\frac{1}{4}$  Top  $\frac{3}{8}$  Bottom  $\frac{3}{8}$ Pitch of stays to ditto: Sides  $7\frac{1}{2} \times 10$ Back  $7\frac{1}{2} \times 8$ Top  $10 \times 8\frac{1}{2}$ 

If stays are fitted with nuts or riveted heads welded, material Steel Working pressure by rules 190 lb.

Material of stays Steel

Area at smallest part  $145$  sq. in.Area supported by each stay  $62$  sq. in.

Working pressure by rules 200 lb. End plates in steam space:

Material Steel Thickness  $1\frac{1}{2}$ Pitch of stays  $16 \times 1\frac{1}{2}$ 

How are stays secured all riveted

Working pressure by rules 215 lb. Material of stays Steel

Area at smallest part  $49$  sq. in.Area supported by each stay  $272$  sq. in.

Working pressure by rules 200 lb.

Material of Front plates at bottom Steel

Thickness  $1\frac{1}{16}$ 

Material of Lower back plate Steel

Thickness  $\frac{3}{4}$ Greatest pitch of stays  $7\frac{1}{4} \times 15\frac{3}{8}$  Working pressure of plate by rules 280 lb.Diameter of tubes  $1\frac{1}{4}$ Pitch of tubes  $4\frac{1}{2}$ 

Material of tube plates Steel

Thickness: Front  $1\frac{1}{16}$ Back  $\frac{3}{4}$ Mean pitch of stays  $9\frac{1}{2}$ Pitch across wide water spaces  $14\frac{1}{4}$ 

Working pressures by rules 198 lb.

Girders to Chamber tops: Material Steel

Depth and

thickness of girder at centre  $2 \times \frac{3}{4} \times 8\frac{1}{2}$ Length as per rule  $2\frac{1}{2} \times \frac{1}{4}$ Distance apart  $8\frac{1}{2}$ 

Number and pitch of stays in each 2-10

Working pressure by rules 210 lb.

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



IS A DONKEY BOILER FITTED? No. ✓

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:—

2 top end bolts, nuts; 2 bottom end bolts, nuts; 2 main bearing bolts; 1 set of coupling bolts; 1 set of feed and bilge pump valves; 1 set of piston springs; a quantity of assorted bolts, nuts; 1 set of crankshaft; 1 screw shaft; 2 propellers; 1 piston rod; 1 set of top and bottom end brass; 1 set of valve spindle and block; 1 feed pump plunger; 1 bilge pump ram; 10 bilge tubes; 2 to condenser tubes; 1 set of safety valve springs; 1 check valve; 11 gunning bolts; 1 set of valves for each auxiliary pump.

The foregoing is a correct description,

WERKSPLOOR

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - - -  
During erection on board vessel - - - - -  
Total No. of visits 33

Is the approved plan of main boiler forwarded herewith  
retained in London.  
" " " donkey " " "

Dates of Examination of principal parts—Cylinders  $9\frac{1}{2}$  -  $3\frac{1}{2}$  Slides  $15\frac{1}{2}$  -  $2\frac{1}{2}$  Covers  $15\frac{1}{2}$  -  $2\frac{1}{2}$  Pistons  $15\frac{1}{2}$  -  $2\frac{1}{2}$  Rods  $15\frac{1}{2}$  -  $3\frac{1}{2}$   
Connecting rods  $15\frac{1}{2}$  -  $3\frac{1}{2}$  Crank shaft  $6\frac{1}{2}$  Thrust shaft  $6\frac{1}{2}$  Tunnel shafts  $6\frac{1}{2}$  -  $14\frac{1}{2}$  Screw shaft  $6\frac{1}{2}$  Propeller  $6\frac{1}{2}$   
Stern tube  $24\frac{1}{2}$  Steam pipes tested  $8\frac{1}{4}$  -  $14\frac{1}{4}$  Engine and boiler seatings  $10\frac{1}{4}$  Engines holding down bolts  $10\frac{1}{4}$  -  $12\frac{1}{4}$   
Completion of pumping arrangements  $22\frac{1}{4}$  Boilers fixed  $18\frac{1}{4}$  Engines tried under steam  $25\frac{1}{4}$   
Completion of fitting sea connections  $28\frac{1}{4}$  Stern tube  $28\frac{1}{4}$  Screw shaft and propeller  $28\frac{1}{4}$   
Main boiler safety valves adjusted  $22\frac{1}{4}$  Thickness of adjusting washers  $8\frac{1}{4}$  or  $8\frac{1}{2}$  or  $9\frac{1}{4}$  or  $9\frac{1}{2}$   
Material of Crank shaft Steel Identification Mark on  $10\frac{1}{2}$  or  $11\frac{1}{2}$  or  $12\frac{1}{2}$  Material of Thrust shaft Steel Identification Mark on  $10\frac{1}{2}$  or  $11\frac{1}{2}$  or  $12\frac{1}{2}$   
Material of Tunnel shafts Steel Identification Marks on  $10\frac{1}{2}$  or  $11\frac{1}{2}$  or  $12\frac{1}{2}$  Material of Screw shafts Steel Identification Marks on  $10\frac{1}{2}$  or  $11\frac{1}{2}$  or  $12\frac{1}{2}$   
Material of Steam Pipes Steel ✓ Test pressure  $600\frac{1}{2}$  lbs per sq. inch

Is an installation fitted for burning oil fuel ✓

Is the flash point of the oil to be used over  $150^{\circ}\text{F}$ . ✓

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

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.)

The machinery and boiler of this vessel have been made in accordance with the approved plans, Secretary's letters and the Rules. The workmanship is good. The engines have been tested and the whole worked satisfactorily under steam. I am of opinion that she is eligible to be classed. + L.M.C. 4.24.

2 Main feed pumps  $8\frac{1}{2} \times 6 \times 18$   
1 Ballast pump  $6 \times 4\frac{1}{2} \times 6$   
1 General service pump  $4\frac{1}{2} \times 5 \times 6$   
1 Condensate pump  $6\frac{1}{2} \times 4 \times 15$   
2 Bilge pumps  $4\frac{1}{2} \times 3 \times 6$   
1 Forward bilge pump  $6 \times 6 \times 6$   
2 Cargo pumps  $14 \times 14 \times 18$   
1 Main pump  $6 \times 4\frac{1}{2} \times 6$

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 4.24. CL.  
Fitted for oil fuel 4.24.  
F.P. above  $150^{\circ}\text{F}$ .

The amount of Entry Fee ... £ 60.-  
Special ... £ 108.-  
Donkey Boiler Fee ... £ 1.-  
Travelling Expenses (if any) £ 32.-

When applied for,

When received,

Committee's Minute

Assigned

FRI MAY 9 1924

+ L.M.C. 4.24. CL.  
Fitted for oil fuel 4.24.  
F.P. above  $150^{\circ}\text{F}$ .

CERTIFICATE WRITTEN.



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Lloyd's Register Foundation

Rpt. 13.

RE

Date of writing

No. in Reg. Book

Built at

Owners

Electric L

System of

Pressure of

Direct or A

If alternating

Has the Aut

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Section and