

REPORT ON MACHINERY.

No. 4644.6

Received at London Office

MON 28 NOV 1910

Date of writing Report 23 November 1910 When handed in at Local Office

10 Port of Amsterdam

No. in Survey held at Amsterdam
Reg. Book.

Date, First Survey 17 June

Last Survey 18 November 1910

Safety

15 in depth on the Steel S. S. Tjitaroem

(Number of Visits 24.)

Tons { Gross 5745 tons

Net 3668 "

When built 1910

Master N. van Nijck Jansz

Built at

Amsterdam

By whom built

Ned Scheepsbouw Maats

Engines made at

Hushington

By whom made

Kon Maats d. Schelde

when made

1910

Boilers made at

Hushington

By whom made

Kon Maats d. Schelde

when made

1910

Registered Horse Power

Owners

Java China Japan Lijn

Port belonging to

Batavia

Nom. Horse Power as per Section 28 545

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

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 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

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

Sizes of Pumps

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

In Engine Room

4 Suctions 3 1/2"

In Holds, &c.

12 Suctions 3 1/2"

No. of Bilge Injections

size 8"

Connected to condenser and circulating pump

Yes

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

Yes

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

Yes

Are they Valves or Cocks

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

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 pipes

How are they protected

Strong wood Casings in stokehold

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

5 August

of Stern Tube

5 August

Screw shaft and Propeller

5 August 1910

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from Engine room platform

BOILERS, &c.—(Letter for record

Manufacturers of Steel

Total Heating Surface of Boilers

Is Forced Draft fitted

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

180 lbs

Are they fitted with easing gear

Yes

Smallest distance between boiler or uptakes and bunkers or woodwork

4' 8"

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

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

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

Material of stays

Diameter 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

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

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

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

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

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

1500-0051
4645-0051

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VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description	When made	Where fixed
Made at	By whom made	No. of Certificate	Fire grate area
Working pressure	tested by hydraulic pressure to	Date of test	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted
If fitted with easing gear	If steam from main boilers can enter the donkey boiler	Date of adjustment	
Material of shell plates	Thickness	Range of tensile strength	Diap. of donkey boiler
Diap. of rivet holes	Whether punched or drilled	Pitch of rivets	Length
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	Descrip. of riveting long. seams
Diameter of furnace Top	Bottom	Length of furnace	Per centage of strength of joint
Working pressure of furnace by rules	Thickness of furnace crown plates	Stayed by	Rivets
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Plates
		Dates of survey	

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - June 17, 23 & 24, July 6, 12 & 16, August 5 & 27, September 1, 6, 13, 15 & 29, October 11, 19, 26 & 31, November 1, 4, 10, 12, 14, 15 & 18-1910
Total No. of visits 24 visits

Is the approved plan of ~~main boiler~~ ^{pipe arrangement} forwarded herewith Yes.

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 4 November Engine and boiler seatings 5 August Engines holding down bolts 15 & 19 October
Completion of pumping arrangements 14 November Boilers fixed 29 October Engines tried under steam 15 and 18 November
Main boiler safety valves adjusted 15 November Thickness of adjusting washers P boiler 9 1/2 & 9 1/2 M boiler 6 & 6 1/2 SB boiler 11, off 10 1/2
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 Steel Test pressure 360 lbs

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

This vessel's machinery and boilers have been fitted on board in an satisfactory manner and in accordance with the Society's rules and approved plans herewith returned to London Office (Kindly see also the Rotterdam Surveyors Report No. 13745 herewith officed)
Steam pipes tested under hydraulic pressure found tight in every respect.
Port boiler whilst under steam for deck purposes, by negligence on account of shortness of water, fusible plugs motten away. Boiler carefully examined & found to have sustained no serious damage except some leaky tubes and landings which have been made tight. Boiler retested under hydraulic pressure to 360 lbs per square inch found tight in every respect and no setting whatever.
Engines & boilers whilst on trial trip worked successfully without hitches or heating. main & donkey pumps drawing from all Compartments.

I am of opinion that this is eligible to be recorded in the Society's Register Book

LMC-11.1910

It is submitted that this vessel is eligible for THE RECORD, + LMC 11.10.

The amount of Entry Fee ... £ : : When applied for, 1/3 Special ... £ 189. — : November 1910
Boiler Fee ... £ 24. — : When received,
Travelling Expenses (if any) £ 10. — : November 1910

Committee's Minute

TUE. 29 NOV 1910

Assigned

+ L.M.C. 11.10
F.D.

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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