

10 Port of Port Harcourt FEB. 1946

on the *Steel Screw Steamer Osterland*

Engines made at Pittsfield By whom made Mr. Wm. Schuch when made 1905-1906

Boilers made at Do. By whom made Do. Wynnond. when made 1915-1916

Registered Horse Power 4 Owners Schuyvers Hendrick M. Port belonging to Rotterdam

Nom. Horse Power as per Section 28 158 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted no

ENGINES, &c. ^{17 1/2} Description of Engines *Triple expansion* ✓ No. of Cylinders *3* ✓ No. of Cranks *3* ✓
 Dia. of Cylinders *14 1/2 x 20 x 40* ^{29" 46"} Length of Stroke *36* Revs. per minute *80* ✓ Dia. of Screw shaft *as per rule 10 1/2* Material of screw shaft *Steel*

Is the screw shaft fitted with a continuous liner the whole length of the stern tube. No liner Is the after end of the liner made water tight in the propeller boss L If the liner is in more than one length are the joints burned L 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 43' ✓

Dia. of Tunnel shaft as per rule $9\frac{1}{8}$ " Dia. of Crank shaft journals as per rule $9\frac{1}{8}$ " Dia. of Crank pin $9\frac{1}{8}$ " Size of Crank webs $1\frac{1}{2} \times 4$ " Dia. of thrust shaft under
 collars $9\frac{1}{8}$ " Dia. of screws $12\frac{1}{2}$ " Pitch of Screws $13\frac{1}{2}$ " No. of Blades 4 State whether malleable or cast Total surface 5.85

No. of Feed pumps 2 Diameter of ditto 3" Stroke 18" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 ✓ Diameter of ditto 3 " ✓ Stroke 18 " ✓ Can one be overhauled while the other is at work Yes ✓

No. of Donkey Engines *2* ✓ Sizes of Pumps *6 x 8 x 10*; *8 x 10 x 12* No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room *2* In Hold: *8*

lock min. after school.

No. of Bilge Injections 4 ^{SIZE} 4 1/2 Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size 2 1/4

Are all the huge 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 *None* How are they protected *None*

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 14/12.15. of Stern Tube 29/12.15. Screw shaft and Propeller 14.15.

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from upper level

BOILERS, &c.—(Letter for record 6 7) Manufacturers of Steel Mills, Machines, Pipes, Valves

Total Heating Surface of Boilers 1110 sq. ft. Is Forced Draft fitted No. No. and Description of Boilers 4 Small under main boilers

Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 29.4.15. No. of Certificate 589.

Can each boiler be worked separately Yes Area of fire grate in each boiler 39 sq ft No. and Description of Safety Valves to

each boiler 2 1/2 in. loaded. Area of each valve 4 1/2 in. Pressure to which they are adjusted 180 lbs. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 15 Mean dia. of boilers 12 1 Length 10 6 1/2 Material of shell plates Steel

Thickness 1/4 Range of tensile strength 20 35 Are the shell plates welded or flanged? No Diagram of riveting See page 10

long. seams *all butt* Diameter of rivet holes in long. seams *1 1/4"* Pitch of rivets *4 1/8"* Lap of plates or width of butt straps *16"*

Per centages of strength of longitudinal joint rivets 84.5%
plate 88.7% Working pressure of shell by rules 19.46 Size of manhole in shell $12' \times 16'$

Size of compensating ring	No. and Description of Furnaces in each boiler	Material	Outside diameter
9" x 1 1/16"	1 main	Steel	3 10 1/2

Length of plain part	Top	Thickness of plates	Top	Description of longitudinal joint	No. of strengthening rings
bottom	bottom	bottom	bottom		
Welding process at furnace both ends	Shell	Combination of shell and plates	Material	Thickness	Sides
				Back	Top
				Bottom	

Pitch of stays to ditto: Sides $\frac{1}{4} \times \frac{1}{4}$ Back $\frac{1}{8} \times \frac{1}{4}$ Top $\frac{1}{4} \times \frac{1}{4}$ If stays are fitted with nuts or riveted heads *vertical nut* Working pressure by rules *181 lbs*

Material of stays Steel Diameter at smallest part 1.75 Area supported by each stay 50 Working pressure by rules 1950 End plates in steam space.

Material Steel Thickness 15/16" Pitch of stays 15 1/2" x 16" How are stays secured across Working pressure by rules 199 lbs. Material of stays Steel

Diameter at smallest part 5.05 Area supported by each stay 248 Working pressure by rules 144 Material of Front plates at bottom Steel
 Thickness 3/4 Material of Lower back plate Steel Thickness 3/4 Greatest pitch of stays 14 1/4 Working pressure of plate by rules 232

Diameter of tubes $3\frac{1}{4}$ " Pitch of tubes $4\frac{1}{2}$ " & $4\frac{1}{2}$ " Material of tube plates Steel Thickness: Front $1\frac{1}{16}$ " Back $1\frac{1}{16}$ " Mean pitch of stays $8\frac{1}{2}$ " & $4\frac{1}{2}$ "

Pitch across wide water spaces $14 \times 8 \frac{3}{4}$ Working pressures by rules 2546. Girders to Chamber tops: Material *Steel* Depth and

thickness of girder at centre 8. x 1 1/4" Length as per rule 2 1/2" Distance apart 4 1/4" Number and pitch of stays in each 2 x 1 1/4"

Working pressure of plates	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 rivets
150 lb.	Superheater; connected to boiler	Can be shut off and boiler worked separately	18 in.	12 ft.	1/2 in.	Steel	Longitudinal joint	1/2 in.

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

If so, is a report now forwarded? 4

The foregoing is a correct description,

Maatschappij voor Scheeps- en Werktuigbouw

G. H. M. B. v. d. V.

Manufacturer.

Is the approved plan of main boiler forwarded herewith Yes
 also the plan of pump, plan? Yes
 " " " donkey " " " Yes

Connecting rods $\frac{1}{16}$ - $\frac{29}{16}$ Crank shaft Mach Thrust shaft Li Tunnel shafts See Screw shaft many Propeller $\frac{23}{16}$ - 15

Completion of pumping arrangements 17/1-16. Boilers fixed 29-12-15. Engines tried under steam 2/2-16.

Material of Crank shaft Steel Identification Mark on Do. 11225 ¹¹²²⁵ ¹¹²²⁵ Material of Thrust shaft Steel Identification Mark on Do. 10222 ¹⁰²²² ¹⁰²²²

Material of Tunnel shafts *Steel* Identification Marks on Do. *4359-4365* Material of Screw shafts *Steel* Identification Marks on Do. *4362-4365*

Material of Steam Pipes Steel ✓ 4366 m.B. 4.18.
Test pressure 600 lb. ✓ Spark. 4365 m.B. 4.1

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 Yes. If so, state name of vessel "S. M. S. S. S. S."

General Remarks (State quality of workmanship, opinions as to class, &c. *The masonry and brick* of the building.

[Faint handwritten notes at the bottom of the page]

nam. cum sit in accordance with the approval of the Secretary &
L. H.

tether, matured textile as required. And ironmongery, gold, the machinery

Harmon: excellent Satisfactory under steam. Same of opinion that the rope

is hereby to be recorded in the Society's Rec. Book. with + L.M.C. 2.16.

1875

THIS VESSEL IS ELIGIBLE FOR
MAY PROCEED + LMC 3 16

123 220000 T L H C 2.16.

221.11

27/11

1500

The amount of Entry Fee ... \$ 24.- : When applied for,

Special ... £ 199.- 1/2 1916 P. N. Bernicki

Donkey Boiler Fee £
 Travelling Expenses (if any) £ 25
 When received, 29/11/16 60/16
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Traveling Expenses (July) $\times 2.1 = 3118/16$ 31/8/16

Committee's Minute

Assigned + Lmb 2 16

100

ALCANTARA
WHIT



**MACHINERY CERTIFICATE
WRITTEN.**



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Foundation