

# REPORT ON MACHINERY.

Received at London Office

Date of writing Report 13<sup>TH</sup> JULY 1921 When handed in at Local Office

Port of SAN FRANCISCO, CAL. MON. AUG. 22 1921

No. in Survey held at SAN PEDRO, CAL. Date, First Survey MARCH 10<sup>TH</sup> 1921 Last Survey JULY 8<sup>TH</sup> 1921

Reg. Book. on the s/s "SCOPAS" (Number of Visits 47) Gross 5828 Tons Net 3455

Master F. REEDEKER Built at SAN PEDRO, CAL. By whom built SOUTHWESTERN S. B. Co. When built 1921

Engines made at HAMILTON OHIO. By whom made HOOVER OWENS & RENTSCHELER CO. when made 1921.

Boilers made at PORTLAND OREGON. By whom made WILLAMETTE IRON & STEEL CO. when made 1921.

Registered Horse Power Owners NEDERLANDSCH-INDISCHE TANK STOOMBOOT MAATSCHAPPIJ Port belonging to COPENHAGEN.

Nom. Horse Power as per Section 28 556. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

**ENGINES, &c.**—Description of Engines TRIPLE EXPANSION. No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 24" x 45" x 44" Length of Stroke 48" Revs. per minute 80 Dia. of Screw shaft as per rule 14.8" Material of screw shaft 8  
as fitted 15.5"

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 WELDED 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 Length of stern bush 63"

Dia. of Tunnel shaft as per rule 14.0" Dia. of Crank shaft journals as per rule 14.0" Dia. of Crank pin 14.2" Size of Crank webs 24 1/2" x 29" Dia. of thrust shaft under collars 14 1/2" Dia. of screw 14.9" Pitch of Screw 14.0" No. of Blades 4 State whether moceable NO Total surface 86.6 sq ft

No. of Feed pumps 2 Dia. of ditto 10 1/2" x 8" Stroke 21" Can one be overhauled while the other is at work YES

No. of Bilge pumps 2 Dia. of ditto 4" Stroke 26" Can one be overhauled while the other is at work YES

No. of Donkey Engines 2 Sizes of Pumps 12" x 10" x 12", 8" x 6" x 18" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 1. 3 1/2" 2. 3" B.R. 2. 3" DRY WELL. 2. 3" In Holds, &c. COFFER DAM. 2. 4"

No. of Bilge Injections 1 sizes 10" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size YES 4"

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

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 YES

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 YES

**BOILERS, &c.**—(Letter for record ) Manufacturers of Steel SEE PORTLAND REPORT NO 629.

Total Heating Surface of Boilers 8451. Is Forced Draft fitted YES No. and Description of Boilers 3, S.E. SCOTCH

Working Pressure 180 LBS Tested by hydraulic pressure to 320 Date of test MARCH 15<sup>TH</sup> 1921. No. of Certificate 228-229-230

Can each boiler be worked separately YES Area of fire grate in each boiler OIL BURNER No. and Description of Safety Valves to each boiler 2 SPRING LOADED. Area of each valve 11.0" 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 14 1/2" 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 rivets Working pressure of shell by rules Size of manhole in shell plate

Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings bottom

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 they 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 outer 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

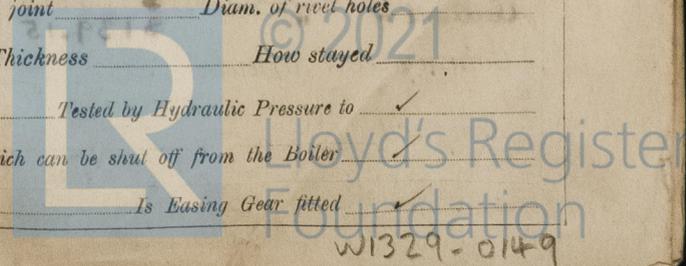
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

**SUPERHEATER.** Type YES Date of Approval of Plan YES Tested by Hydraulic Pressure to YES

Date of Test YES Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler YES

Diameter of Safety Valve YES Pressure to which each is adjusted YES Is Easing Gear fitted YES

If not, state whether, and when, one will be sent?



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