

# REPORT ON OIL ENGINE MACHINERY.

No. 7769  
23 JUL 1928

Registered at London Office

Date of writing Report 15<sup>th</sup> July 1928 When handed in at Local Office 19 Port of Copenhagen

No. in Survey held at Copenhagen Date, First Survey 27<sup>th</sup> October 1927 Last Survey 28<sup>th</sup> June 1928  
Reg. Book. 42833 Number of Visits 85

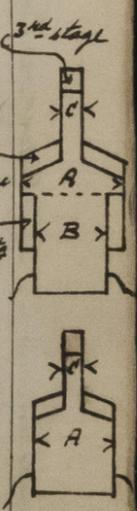
Single }  
Twin } Motor vessel "SUD PACIFICO." Tons } Gross 4838.66  
Triple }  
Quadruple }

Built at Copenhagen By whom built Art. Burmeister & Wain's Maskin og Skibsbyggeri Yard No. 547 When built 1928  
Engines made at Copenhagen By whom made Art. Burmeister & Wain's Maskin og Skibsbyggeri Engine No. 1448 When made 1928  
Donkey Boilers made at Amman By whom made Cochran & Co. Amman Ltd. Boiler No. 10720 When made 1928  
Brake Horse Power 2400 Owners 1/8 Linea Sud Americana (Car. An. Christensen) Port belonging to Oslo, - Norway  
Nom. Horse Power as per Rule 534 Is Refrigerating Machinery fitted for cargo purposes no. Is Electric Light fitted yes  
Trade for which vessel is intended Between parts of North and South America.

**OIL ENGINES, &c.**—Type of Engines Vertical Diesel Oil Engines (Cross head type) 2 or 4 stroke cycle 4 Single or double acting Single  
 Maximum pressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 550 mm = 21 5/8" Length of stroke 500 mm = 19 3/4" No. of cylinders 2 x 6 No. of cranks 2 x 6  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 740 mm Is there a bearing between each crank Yes  
 Revolutions per minute 100 Wheel dia. 1652 mm Weight 1100 kg. Means of ignition Air compression Kind of fuel used Crude oil, flash point about 150°F.  
 Crank Shaft, dia. of journals as per Rule 374.3 mm Crank pin dia. 380 mm Crank Webs Mid. length breadth 680 mm shrunk Thickness parallel to axis 240 mm  
 as fitted 380 mm Mid. length thickness 220 mm Thickness around eye-hole 184 mm  
 Flywheel Shaft, diameter as per Rule 10.58" Intermediate Shafts, diameter as per Rule 10 5/8" Thrust Shaft, diameter at collars as per Rule 11.1" = 281 mm  
 as fitted 10 5/8" as fitted 380 mm  
 Tube Shaft, diameter as per Rule 11.58" Is the tube shaft fitted with a continuous liner yes  
 as fitted 12" as fitted 12"  
 Bronze Liners, thickness in way of bushes as per Rule 0.664" Thickness between bushes as per rule 0.5" Is the after end of the liner made watertight in the propeller boss yes  
 as fitted 3/4" as fitted 9/16" If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner in 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 yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft yes  
 Length of Bearing in Stern Bush next to and supporting propeller 5'0" (Lignum vitae)  
 Propeller, dia. 12'0" Pitch 13'9" No. of blades 4 Material Brass whether Moveable no Total Developed Surface 45.0 sq. feet  
 Method of reversing Engines Direct reversible Is a governor or other arrangement fitted to prevent racing of the engine when decelerated yes Means of lubrication oil lubrication  
 Thickness of cylinder liners 38 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Exhaust pipes led up inside the funnel.  
 Cooling Water Pumps, No. 2 off Centrifugal 120 tons each Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes  
 Bilge Pumps worked from the Main Engines, No. each engine Diameter of trunks 150 mm Stroke 175 mm Can one be overhauled while the other is at work yes  
 Pumps connected to the Main Bilge Line { No. and Size 1 off ballast pump 150 tons - 2 off bilge & sanitary pumps 26 tons each - 2 off engine bilge & sanitary pumps 20 tons each.  
 How driven by electro motor - by electro motor - by the main engines.  
 Ballast Pumps, No. and size 1 off Rotary wing pump 150 tons Lubricating Oil Pumps, including Spare Pump, No. and size 2 off Cock wheel pumps - 55 tons each.  
 Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces 3 off 3 1/2" dia & 2 off 3" dia. In tunnel well 1 off 3 1/2" dia. - in F.P.T. & A.P.T. 1 off in each 2 1/2" dia.  
 In Holds, &c. 1 & 2 holds 2 off in each 3 1/2" dia. In 3 & 4 holds 3 off in each 3 1/2" dia. In the double bottom tanks, 4" dia arranged as per approved plan.  
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 off 6" dia and 2 off 5" diam.  
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes  
 Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks Valves except the donkey boiler blow off cocks.  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates yes Are the Overboard Discharges 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 pass through the bunkers No bunkers How are they protected yes  
 What pipes pass through the deep tanks none Have they been tested as per Rule yes  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes  
 Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from the grating at the upper deck level.  
 On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork yes

**AIR RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve yes  
 Are the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces Man holes fitted in starting air receiver. Rinsing arrangements made for cleaning the high pressure air bottles by steam.  
 Is there a drain arrangement fitted at the lowest part of each receiver yes  
 High Pressure Air Receivers, No. 3 No. of stages 3 Diameters 600 - 540 - 120 mm Stroke 440 mm Driven by the main engines.  
 Auxiliary Air Receivers, No. 3 No. of stages 2 Diameters 375 - 285 - 78 " Stroke 220 " Driven by the auxiliary engines.  
 Small Auxiliary Air Receivers, No. 1 No. of stages 2 Diameters 90 - 35 " Stroke 120 " Driven by hand.  
 scavenging Air Pumps, No. 1 Diameter 170 mm Stroke 170 mm Driven by hand.  
 Auxiliary Engines crank shafts, diameter as per Rule 161.6 mm  
 as fitted 170 mm

**STARTING AIR RECEIVERS:**—No. 1 off. Total cubic capacity 800 cubic feet Internal diameter 6'0" and 6'1 5/8" thickness Ends 1" and 1 1/8 + 1/32  
 seamless, lap welded or riveted longitudinal joint double butt straps Material S.M. Steel Range of tensile strength Ends: 42.6 - 43.6 - Working pressure by Rules 25.9 kg/cm<sup>2</sup>



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