

REPORT ON OIL ENGINE MACHINERY.

No. 10081

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Date of writing Report 26/10/27 When handed in at Local Office 19 Port of GENOA.
No. in Survey held at GENOA. Date, First Survey APRIL 26/1927. Last Survey OCT. 32. 1927.
Reg. Book. Number of Visits 53.

1006. on the ^{Single} ~~Twin~~ ~~Quadruple~~ Screw vessel "ORAZIO" Tons Gross Net

Built at BAIA. By whom built CANTIERE ED OFFICINE MERIDIONALE Yard No. 14. When built 1927.
Engines made at TRIESTE. By whom made STABILIMENTO TECNICO TRIESTINO Engine Nos. 510/2 When made 1927.
Donkey Boilers made at HAMBURG. By whom made DEUTSCHE WERT. A. G. Boilers No. 236/238. When made 1926.
Brake Horse Power Owners NAVIGAZIONE GENERALE ITALIANA. Port belonging to GENOA.
Nom. Horse Power as per Rule 1312. Is Refrigerating Machinery fitted for cargo purposes YES. Is Electric Light fitted YES.
Trade for which vessel is intended SOUTH AMERICAN (WEST COAST) PASSENGER & GENERAL CARGO.

L ENGINES, &c. Type of Engines BURMEISTER WAIN DIESEL. 2 or 4 stroke cycle 4. Single or double acting SINGLE.
Maximum pressure in cylinders 35 Kg/cm². Diameter of cylinders 740 mm. Length of stroke 1300 mm. No. of cylinders 16. No. of cranks 16.
Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 1004 mm. Is there a bearing between each crank YES.
Revolutions per minute 125. Flywheel dia. 2150 mm. Weight 5600 Kg. Means of ignition COMPRESSION. Kind of fuel used DIESEL OIL.
Crank Shaft, dia. of journals as per Rule APP. 487 mm. as fitted 487 mm. Crank pin dia. 487 mm. Crank Webs Mid. length breadth 928 mm. Thickness parallel to axis 310 mm.
Flywheel Shaft, diameter as per Rule APP. 343 mm. as fitted 343 mm. Intermediate Shafts, diameter as per Rule APP. 325 mm. as fitted 325 mm. Thrust Shaft, diameter at collars as per Rule APP. 343 mm. as fitted 343 mm.
Screw Shaft, diameter as per Rule APP. 375 mm. as fitted 383 mm. Is the screw shaft fitted with a continuous liner YES.

Bronze Liners, thickness in way of bushes as per Rule 17.5 mm. as fitted 21 mm. + 23.5 mm. Thickness between bushes as fitted 17.5 mm. Is the after end of the liner made watertight in the propeller boss YES.
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner.
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.
two liners are fitted, is the shaft lapped or protected between the liners. Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft.

Propeller, dia. 4540 mm. Pitch 170 mm. No. of blades 3. Material BRONZE whether Moveable YES. Total Developed Surface 5.90 sq. m.
Method of reversing Engines COMP. AIR. Is a governor or other arrangement fitted to prevent racing of the engine when disconnected YES. Means of lubrication OIL.
Thickness of cylinder liners 58.5 to 41 mm. Are the cylinders fitted with safety valves YES. Are the exhaust pipes and silencers water cooled or lagged with conducting material BOTH. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine LED TO FUNNEL.

Working Water Pumps, No. TWO. CENTRIFUGAL. Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES.
Pumps worked from the Main Engines, No. 4. Diameter 160 mm. Stroke 270 mm. Can one be overhauled while the other is at work YES.
Pumps connected to the Main Bilge Line No. and Size SIX. FOUR 160 mm x 270 mm. TWO 300 mm x 300 mm. MAIN ENGINES. ELECTRIC MOTORS.
Fast Pumps, No. and size TWO 300 mm x 300 mm. Lubricating Oil Pumps, including Spare Pump, No. and size TWO 65 TONS PER HOUR.

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 SIX. 100.5 mm DIA. 3.94" FOUR 83 mm DIA 3.27" (COFFERDAMS).
Holds, &c. FORWARD FIVE 110 mm DIA, THREE 69 mm DIA, ONE 100.5 mm DIA. AFT. SIX 110 mm DIA, FIVE 69 mm DIA, TWO 100.5 mm DIA.
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size TWO 100.5 mm DIA. 3.94"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES. Are the Bilge Suctions in the Machinery Spaces 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.
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.

Do pipes pass through the bunkers: How are they protected.
Do pipes pass through the deep tanks HEATING PIPES. 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 ABOVE MAIN DECK.

For wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork.
Air Compressors, No. ONE EACH ENGINE No. of stages THREE Diameters 150, 175, 750 mm Stroke 560 mm Driven by MAIN ENGINES.
Auxiliary Air Compressors, No. THREE No. of stages THREE Diameters 70, 270, 320 mm Stroke 370 mm Driven by AUX. DIESEL ENGINE.
Auxiliary Air Compressors, No. ONE No. of stages TWO Diameters 34, 106 mm Stroke 80 mm Driven by STEAM ENGINE.
Suctioning Air Pumps, No. NONE Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule APPROVED 204 mm. as fitted 204 mm.

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule YES.
Are the internal surfaces of the receivers be examined YES. What means are provided for cleaning their inner surfaces ACCESSIBLE FOR CLEANING.
Are there a drain arrangement fitted at the lowest part of each receiver YES.
Pressure Air Receivers, No. 4 MAIN, 3 AUX. Cubic capacity of each 2.2 500 LITRES. Internal diameter 480 mm thickness 24 mm.
less, lap welded or riveted longitudinal joint WELDED SEAMLESS Material STEEL Range of tensile strength 36/47 NEDED Working pressure by Rules 65 Kg/cm².
Suctioning Air Receivers, No. TWO Total cubic capacity 22 m³ Internal diameter 1053 mm thickness 26.5 mm.
less, lap welded or riveted longitudinal joint RIVETED Material STEEL Range of tensile strength 41/50.5 Kg/cm² Working pressure by Rules 25 Kg/cm².

IS A DONKEY BOILER FITTED? YES If so, is a report now forwarded? YES

PLANS. Are approved plans forwarded herewith for Shafting YES Receivers YES Separate Tanks YES

Donkey Boilers YES General Pumping Arrangements YES Oil Fuel Burning Arrangements YES

SPARE GEAR ONE PROPELLER SHAFT. 2 PROPELLER BLADES. (RIGHT & LEFT HAND).
 ONE CYLINDER COVER COMPLETE FOR BOTH MAIN AND AUXILIARY ENGINES.
 ONE COMPLETE SET OF VALVES, SEATS, SPRINGS ETC FOR ONE MAIN AND AUXILIARY ENGINE CYLINDER.
 ONE PISTON COMPLETE FOR BOTH MAIN AND AUXILIARY ENGINES.
 ONE COMPLETE SET OF SPARE RINGS FOR ONE MAIN & AUXILIARY PISTONS.
 ONE COMPLETE SET OF SKEW WHEELS FOR ONE MAIN ENGINE.
 TWO CONNECTING ROD TOP AND BOTTOM END BOLTS AND MAIN BEARING BOLTS COMPLETE MAIN & AUX.
 ONE SET OF COUPLING BOLTS COMPLETE FOR CRANK AND INTERMEDIATE SHAFTS.
 ONE COMPLETE SET OF PISTON RINGS AND VALVES FOR MAIN AND AUXILIARY COMPRESSORS.
 ONE FUEL PUMP COMPLETE FOR MAIN AND AUXILIARY ENGINES.
 ONE COMPLETE SET OF VALVES FOR ALL AUXILIARY PUMPS, QUANTITIES OF ASSORTED BOLTS & NUTS,
 LENGTHS OF PIPES (VARIOUS DIAMETERS) AND NUMERABLE OTHER SPARE PARTS FOR ALL BRANCHES AND
 SECTIONS OF THE MACHINERY INSTALLATION ON BOARD.
 The foregoing is a correct description,

Stabilimento Tecnico Triestino
 Fabbrica macchine S. Andrea - Trieste

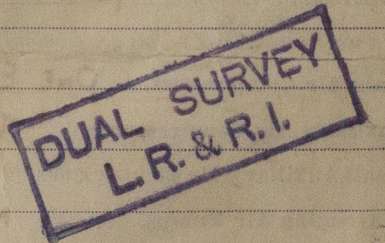
OFFICINE ALLESTIMENTO E RIPARAZIONI NAVI
 L. Mellini
 Manufacturer.

During progress of work in shops - - SEE TRIESTE REPORT N° 7596. N° 141.
 Dates of Survey while building During erection on board vessel - - 1927, APRIL 26, 27, 28, MAY 3, 30, 31, JUNE 1, 6, 13, 21, 30, JULY 1, 10, 14, 18, 19, 20, 28, 29, AUG 11, 13, 17, 19, 22, 24, SEPT 1, 7, 9, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, OCT 1, 4, 5, 6, 8, 9, 11, 12, 14, 19, 20, 22. -
 Total No. of visits 141 + 53. 194.
 Dates of Examination of principal parts - Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓
 Crank shaft ✓ Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts ✓ Tube shaft ✓
 Screw shaft ✓ Propeller 1-10-27. Stern tube ✓ Engine seatings ✓ Engines holding down bolts 9-9-27, 16-9-27.
 Completion of fitting sea connections ✓ Completion of pumping arrangements 9-10-27. Engines tried under working conditions 9-11-10-27.
 Crank shaft, Material STEEL Identification Mark 295 N.G. 296 N.G. Flywheel shaft, Material STEEL Identification Mark 280 N.G. 291 N.G.
 Thrust shaft, Material STEEL Identification Mark 280 N.G. 291 N.G. Intermediate shafts, Material STEEL Identification Marks 282-3, 285-9, 272-9 N.G.
 Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material STEEL Identification Mark 271 N.G. 281 N.G.
 Is the flash point of the oil to be used over 150° F. YES

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 of this vessel has been constructed under Special Survey at Trieste, see Trieste report no 7596.

It has now been satisfactorily fitted on board in accordance with approved plans, rule requirements and Secretary's letter, and when examined under working condition was found satisfactory.
 In our opinion the vessel is eligible for the record of
 + LLOYD'S MACHINERY CERTIFICATE (LMC) 10-27 and the Isolations OIL ENGINES.
 C.L. 2 DB - 100 LBS.



The amount of Entry Fee ... £
 Special ... 1/5 ... £1,980.00
 Donkey Boilers Fee ... £1. 300.00
 Travelling Expenses (if any) ... £1. 650.00
 SUMOAR FEE ... £1. 100.00
 Committee's Minute
 Assigned

J. W. Leicester & Max Lawaender
 Engineer Surveyors to Lloyd's Register of Shipping.



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+ LMC 10-27 C.L.
 Oil Engines 2 DB 100 lbs

Certificate (if required) to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)