

# REPORT ON OIL ENGINE MACHINERY.

No. 8077  
Received at London Office 13 SEP 1928

Date of writing Report 19... When handed in at Local Office 6.9.19 Port of Trieste  
No. in Survey held at Monfalcone Date, First Survey 18/4 Last Survey 20/8 1928  
Reg. Book. Number of Visits 10

81823 on the Single Twin Triple Quadruple Screw vessel M.S. Puccini Tons Gross 2422 Net 1419  
Built at Monfalcone By whom built Cantieri Navale Triestino Yard No. 191 When built 1928  
Engines made at Turin By whom made Fiat Fab. Grandi Motori Engine No. 1450 When made 1928  
Donkey Boilers made at Annon By whom made Cochran & Co. Annon P.D. Boiler No. 10700 When made 1928  
Brake Horse Power 1700 Owners "Cecilia" S.A. di Nav. Maritt. Port belonging to Trieste  
Nom. Horse Power as per Rule 391 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
Trade for which vessel is intended

**OIL ENGINES, &c.**—Type of Engines *Triat Diesel* 2 or 4 stroke cycle 2 Single or double acting *single*  
Maximum pressure in cylinders *35 Kg/cm<sup>2</sup>* Diameter of cylinders *600 mm* Length of stroke *950 mm* No. of cylinders 4 No. of cranks 4  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *830 mm* Is there a bearing between each crank *yes*  
Revolutions per minute *135* Flywheel dia. *2770 mm* Weight *7900 Kg.* Means of ignition *Compress.* Kind of fuel used *diesel oil*  
Crank Shaft, dia. of journals *approved as per Rule 380 mm* Crank pin dia. *380 mm* Crank Webs Mid. length breadth *520 mm* Thickness parallel to axis *shrunk*  
Flywheel Shaft, diameter *approved as per Rule 380-270 mm* Intermediate Shafts, diameter *approved as per Rule 255 mm* Thrust Shaft, diameter at collars *approved as per Rule 280 mm*  
Tube Shaft, diameter *as per Rule* Screw Shaft, diameter *as fitted 280 mm* Is the tube screw shaft fitted with a continuous liner *yes*  
Bronze Liners, thickness in way of bushes *as per Rule 16 mm* Thickness between bushes *as per rule 12 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 *yes*  
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 *no*  
If two liners are fitted, is the shaft lapped or protected between the liners *no* Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft *no* Length of Bearing in Stern Bush next to and supporting propeller *1180 mm*

Propeller, dia. *3600 mm* Pitch *3170 mm* No. of blades 3 Material *Brass* whether Moveable *no* Total Developed Surface *4.29* sq. feet  
Method of reversing Engines *direct* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *yes* Means of lubrication *forced*  
Thickness of cylinder liners *53.5 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 *no*  
Cooling Water Pumps, No. *one on main engine* 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. *—* Diameter *—* Stroke *—* Can one be overhauled while the other is at work *no*

Pumps connected to the Main Bilge Line { No. and Size *Two. One d 200 x 200 mm one d 210 x 250 mm* How driven *Electric motor* } *One to Main Engine* } *Protable*  
Ballast Pumps, No. and size *One 210 x 250 mm* Lubricating Oil Pumps, including Spare Pump, No. and size *One independent*  
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 *Two 2 3/4" on main bilge line. One 2 3/4" in forward Cofferdam. One 2 3/4" in after Cofferdam.*  
In Holds, &c. *Two 2 3/4" in No. 2 Hold, Two 2 3/4" in No. 3 Hold. Three 2 3/4" in No. 4 Hold. One 2 3/4" in Tunnel Well*

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *Three 3 1/2"*  
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 & 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 *—* How are they protected *—*  
What pipes pass through the deep tanks *—* Have they been tested as per Rule *—*

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 *top of Cylinder.*  
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork *—*  
Main Air Compressors, No. *One* No. of stages 3 Diameters *HP 120 mm LP 600-120* Stroke *500 mm* Driven by *Main Eng.*  
Auxiliary Air Compressors, No. *Two* No. of stages 3 Diameters *310-270-70* Stroke *250 mm* Driven by *Aux. Diesel Eng.*  
Small Auxiliary Air Compressors, No. *One* No. of stages 3 Diameters *185-165-42* Stroke *140 mm* Driven by *2nd Bulk Eng.*  
Scavenging Air Pumps, No. *One double acting* Diameter *1100 mm* Stroke *780 mm* Driven by *Main Eng.*  
Auxiliary Engines crank shafts, diameter *approved as per Rule 100 mm* as fitted *100 mm*

**AIR RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *yes*  
Can the internal surfaces of the receivers be examined *yes* What means are provided for cleaning their inner surfaces *Plugs in ends*  
Is there a drain arrangement fitted at the lowest part of each receiver *yes*  
High Pressure Air Receivers, No. *2* Cubic capacity of each *115 litres* Internal diameter *291 mm* thickness *12 1/2 mm*  
Seamless, lap welded or riveted longitudinal joint *seamless* Material *S.M.S.* Range of tensile strength *45 Kg/cm<sup>2</sup>* Working pressure by Rules *75 Kg/cm<sup>2</sup>*  
Starting Air Receivers, No. *20* Total cubic capacity *7000 litres* Internal diameter *313 mm* thickness *14 mm*  
Seamless, lap welded or riveted longitudinal joint *seamless* Material *S.M.S.* Range of tensile strength *46 Kg/cm<sup>2</sup>* Working pressure by Rules *75 Kg/cm<sup>2</sup>*

IS A. DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

PLANS. Are approved plans forwarded herewith for Shafting *—*  
(If not, state date of approval)

Receivers *—*

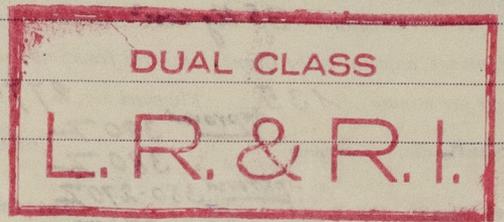
Separate Tanks *—*

Donkey Boilers *yes*

General Pumping Arrangements *yes*

Oil Fuel Burning Arrangements *—*

SPARE GEAR *See list attached*



The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

(During progress of work in shops - -)  
(During erection on board vessel - -)  
Total No. of visits

*1928 April 18, June 11, 14, 15, 18, Aug 3, 6, 9, 14, 20.*

*Ten (Crete)*

*See also Genova Report No 10388*

Dates of Examination of principal parts—Cylinders *25.5.28* Covers *25.5.28* Pistons *25.5.28* Rods *25.5.28* Connecting rods *18.5.28*

Crank shaft *13.3.28* Flywheel shaft *25.5.28* Thrust shaft *17.4.28* Intermediate shafts *27.2.28* Tube shaft *—*

Screw shaft *3.4.28* Propeller *14.8.28* Stern tube *15.6.28* Engine seatings *12.12.27* Engines holding down bolts *3.8.28*

Completion of fitting sea connections *14.8.28* Completion of pumping arrangements *14.8.28* Engines tried under working conditions *20.8.28*

Crank shaft, Material *S.M.S* Identification Mark *6530 CRH 13.1.28* Flywheel shaft, Material *S.M.S* Identification Mark *600 ASM 17.4.28*

Thrust shaft, Material *S.M.S* Identification Mark *6531 CRH 13.1.28* Intermediate shafts, Material *S.M.S* Identification Marks *588-611 RM 3.4.28-590 ASM 11.5.28*

Tube shaft, Material *—* Identification Mark *—* Screw shaft, Material *S.M.S* Identification Mark *605 RM 11.5.28*

Is the flash point of the oil to be used over 150° F.

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.)

*This engine has been fitted on board at Moulaloue under special supervision and satisfactorily tested under full working condition in accordance with the Rules for Diesel Engines. In my opinion the machinery is eligible for the notation of + LMC 8.28*

Certificate Office

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

|   |                   |
|---|-------------------|
| The amount of Entry Fee ... £             | When applied for, |
| <i>1/5 Special ... £1558.</i>             | 19                |
| Donkey Boiler Fee <i>daydet</i>           | When received,    |
| Travelling Expenses (if any) <i>£377.</i> | <i>10.12.28</i>   |

Committee's Minute

18 SEP 1928

Assigned

*+ L.M.C. 8.28 Cr. Oil Engines*

*R. P. Sparrow*  
Engineer Bureau to Lloyd's Register of Shipping.



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