

REPORT ON OIL ENGINE MACHINERY.

No. 8077

Received at London Office 13 SEP 1928

Date of writing Report

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 *MS 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 *Triat. Fab. Grandi Motori* Engine No. *1455* When made *1928*
Donkey Boilers made at *Amman* By whom made *Lochman & Co. Amman P.* Boiler No. *10700* When made *1928*
Brake Horse Power *1700* Owners *"Guria" 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/cm²* 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 *as approved 380 mm* Crank pin dia. *380 mm* Crank Webs *as approved 255 mm* Mid. length breadth *520 mm* Thickness parallel to axis *shrunk*
Flywheel Shaft, diameter *as fitted 380-270 mm* Intermediate Shafts, diameter *as fitted 255 mm* Thrust Shaft, diameter at collars *as fitted 280 mm*
Tube Shaft, diameter *as per Rule* Screw Shaft, diameter *as fitted 280 mm* Is the { tube } shaft fitted with a continuous liner { *yes*
Bronze Liners, thickness in way of bushes *as per Rule 16 mm* Thickness between bushes *as fitted 16 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 decelerated *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 200 x 200 mm one 210 x 250 mm*
How driven *Electric motor* } *One to Main Engine* } *Rotative*
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. 1 Hold. Two 2 3/4" in No. 3 Hold. One 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 *as approved 160 mm*
as fitted *160 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/cm²* Working pressure by Rules *75 kg/cm²*
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/cm²* Working pressure by Rules *75 kg/cm²*

IS A. DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR See list attached

DUAL CLASS

L.R. & R.I.

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 Apr 18, June 11, 14, 15, 18, Aug 3, 6, 9, 14, 20.

Ten (On-site)

See also Genoa 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 14.8.28 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 SPM Identification Mark 6530 CRH 13.1.28 Flywheel shaft, Material SPM Identification Mark 600 ASM 17.4.28

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

Tube shaft, Material - Identification Mark - Screw shaft, Material SPM 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 Moultrie under special order 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

The amount of Entry Fee ... £ 1/5 Special ... £ 1558. + Donkey Boiler Fee ... £ 377. + Travelling Expenses (if any) ... £ 377. +

When applied for,

19

When received,

10.12.28

Committee's Minute

18 SEP 1928

Assigned

+ LMC 8.28 Cr. Oil Engines

R. P. Sparrow

Engineer Bureau to Lloyd's Register of Shipping.



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