

# REPORT ON OIL ENGINE MACHINERY.

No. 9584  
OCT 1926

Date of writing Report 27/9/26 When handed in at Local Office 27/9/26 Port of Genoa  
No. in Survey held at Turin Date, First Survey July 20, 1925 Last Survey Sept 9 1926 Turin  
Reg. Book. Number of Visits TURIN 42

on the Triple Screw vessel "MARIA" Tons Gross  
Quadruple Built at Trieste By whom built Cant. Nav. Frestino Yard No. 159 When built  
Engines made at Turin By whom made Fiat - Stab. Grandi Motori Engine No. 1285 When made 1926  
Donkey Boilers made at \_\_\_\_\_ By whom made \_\_\_\_\_ Boiler No. \_\_\_\_\_ When made \_\_\_\_\_  
Brake Horse Power 2200 Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_  
Nom. Horse Power as per Rule 610 Is Refrigerating Machinery fitted for cargo purposes \_\_\_\_\_ Is Electric Light fitted \_\_\_\_\_  
Trade for which vessel is intended 606

**ALL ENGINES, &c.**—Type of Engines Diesel - Fiat 2 or 4 stroke cycle 2 Single or double acting Single  
Maximum pressure in cylinders 34 kg/cm<sup>2</sup> Diameter of cylinders 750 mm Length of stroke 1250 No. of cylinders 4 No. of cranks 4  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1050 Is there a bearing between each crank Yes  
Revolutions per minute 95 Flywheel dia. 3973 Weight 16500 Means of ignition Compression Kind of fuel used Diesel oil  
Crank Shaft, dia. of journals as per Rule 467 as fitted 480 Crank pin dia. 480 Crank Webs Mid. length breadth 650 Thickness parallel to axis shrunk  
Flywheel Shaft, diameter as per Rule 467 as fitted 480 Intermediate Shafts, diameter as per Rule 324 as fitted 330 Thrust Shaft, diameter at collars as per Rule 332 as fitted 360  
Tube Shaft, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Screw Shaft, diameter as per Rule 372 as fitted 385 Is the tube shaft fitted with a continuous liner Yes  
Bronze Liners, thickness in way of bushes as per Rule 19.4 as fitted 20 + 21.5 Thickness between bushes as per Rule 14.6 as fitted 17.5 Is the after end of the liner made watertight in the propeller boss \_\_\_\_\_ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes - 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 No space  
If 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 \_\_\_\_\_ Length of Bearing in Stern Bush next to and supporting propeller 1550  
Propeller, dia. 4800 Pitch 3850 No. of blades 4 Material \_\_\_\_\_ whether Moveable No Total Developed Surface 7.72 m<sup>2</sup> 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 60 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers lagged with non-conducting material Yes  
Cooling Water Pumps, No. 1 ATTACHED 1 @ 250 DIA. X 200 STROKE Is the sea suction provided with an efficient strainer which can be cleared within the vessel \_\_\_\_\_  
Bilge Pumps worked from the Main Engines, No. None Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
Pumps connected to the Main Bilge Line { No. and Size \_\_\_\_\_ How driven \_\_\_\_\_

Ballast Pumps, No. and size \_\_\_\_\_ Lubricating Oil Pumps, including Spare Pump, No. and size 1 ROTARY WORKED BY MAIN ENG. CAPY 40 m<sup>3</sup>/hr.  
Are two independent means arranged for circulating water through the Oil Cooler \_\_\_\_\_ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces \_\_\_\_\_  
In Holds, &c. \_\_\_\_\_  
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size \_\_\_\_\_  
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes \_\_\_\_\_ Are the Bilge Suctions in the Machinery Spaces \_\_\_\_\_  
Are they fitted with Valves or Cocks \_\_\_\_\_  
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates \_\_\_\_\_ Are the Overboard Discharges above or below the deep water line \_\_\_\_\_  
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel \_\_\_\_\_ Are the Blow Off Cocks fitted with a spigot and brass covering plate \_\_\_\_\_  
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 \_\_\_\_\_  
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 \_\_\_\_\_ Is the Shaft Tunnel watertight \_\_\_\_\_ Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_

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. 1 No. of stages 3 Diameters 140 HP 350/150 MP Stroke 750 Driven by Main Motor  
Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 350/350 + 350/140 LP Stroke 250 Driven by Elec. Motor  
Small Auxiliary Air Compressors, No. 1 Hand No. of stages Compressor Diameters \_\_\_\_\_ Stroke 140 Driven by Hot Bull. Motor  
Scavenging Air Pumps, No. 2 Tandem Diameter 950 Stroke 1000 Driven by Main Motor  
Auxiliary Engines crank shafts, diameter as per Rule 147 + 87.5 as fitted 157 + 105

**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, by lamp What means are provided for cleaning their inner surfaces Openings at 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 190 LITRE Internal diameter 291 thickness 12.5  
Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 45 kg/cm<sup>2</sup> Working pressure by Rules 82.5 kg/cm<sup>2</sup>  
Starting Air Receivers, No. 21 Total cubic capacity 8400 LITRES Internal diameter 291 thickness 12.5  
Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 45 kg/cm<sup>2</sup> Working pressure by Rules 82.6 kg/cm<sup>2</sup>

DUAL SURVEY  
L. R. & R. I.

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting <sup>14/5/25</sup> <sup>7/1/26</sup> Receivers <sup>7/1/26</sup> Separate Tanks  
 (If not, state date of approval) <sup>13/10/25</sup> <sup>19/8/25</sup>

Donkey Boilers \_\_\_\_\_ General Pumping Arrangements \_\_\_\_\_ Oil Fuel Burning Arrangements \_\_\_\_\_

SPARE GEAR *Trieste*

**FIAT**  
 STABILIMENTO GRANDI MOTORI  
 The foregoing is a correct description,

*W. P. ...* p. Manufacturer.

Dates of Survey while building  
 During progress of work in shops -- <sup>1925</sup> JULY 20 AUG 7 SEPT 22 OCT 8, 15 NOV 5, 11, 18 DEC 3, 15 <sup>1926</sup> FEB 11, 24 MAR 9, 10, 17 APR 1, 8, 13, 14, 20  
 During erection on board vessel -- APR 23, 28 MAY 4, 5, 14, 15, 26, 27 JUNE 3, 8, 15, 22, 30, JULY 1, 8, 22, 29 AUG 9, 12, 21, SEPT 2, 9, 16, 23, 30  
 Total No. of visits **42 TURIN +**

Dates of Examination of principal parts—Cylinders *15/7/26* Covers *14-5-26* Pistons *27-5-26* Rods *20/4/26* Connecting rods *20/4/26*

Crank shaft *17/3/26* Flywheel shaft *AND* Thrust shaft *15/6/26* Intermediate shafts *28/4/26* Tube shaft *—*

Screw shaft *15/6/26* Propeller \_\_\_\_\_ Stern tube \_\_\_\_\_ Engine seatings \_\_\_\_\_ Engines holding down bolts *IN SHIP 9-8*

Completion of fitting sea connections \_\_\_\_\_ Completion of pumping arrangements \_\_\_\_\_ Engines tried under working conditions *IN SHIP 9-8*

Crank shaft, Material *Steel* Identification Mark *1-2 CNS 3 GB.* Flywheel shaft, Material *Steel* Identification Mark *207 CNS*

Thrust shaft, Material *Steel* Identification Mark *207 CNS* Intermediate shafts, Material *Steel* Identification Marks *203-204-185*

Tube shaft, Material *—* Identification Mark *—* Screw shaft, Material *Steel* Identification Mark *187-188-189-190*

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. *This oil Engine machinery has been constructed under special survey, in accordance with the approved plans, the Secretary's letters and the Requirements of the Rules. Materials and workmanship are good. In our opinion the machinery, which has been shipped to Trieste for fitting onboard, is such as may be fitted in a vessel building to the Society's class. A copy of this report has been sent to the Trieste Surveyors.*

*Insuring Rpts and plans sent to Trieste.*

DUAL SURVEY  
 L. R. & R. I.

AUTHORISATION LTR. *14/8/25*

The amount of Entry Fee ... £ *Trieste*  
 Special *4 1/2 GENOVA Lt. 11,390 =* When applied for, *2/10/26*  
 Donkey Boiler Fee ... £ *4000 =* When received, *13/1/27*  
 Travelling Expenses (if any) £ \_\_\_\_\_

*Alex Lawrence*  
 Engineer Surveyor to Lloyd's Register of Shipping.  
*for self and C. W. Stuart.*

Committee's Minute **FRI. 3 DEC 1926**  
*See Tri. Rpt. No 7361*  
 Assigned \_\_\_\_\_

**L** Lloyd's Register Foundation

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