

## 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 <sup>Single</sup> ~~Twin~~ <sup>Triple</sup> ~~Quadruple~~ Screw vessel "MARIA"  
Built at Trieste By whom built Cant. Nav. Triestina 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

IL 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 mm 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  
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 <sup>tube</sup> ~~screw~~ 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 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers lagged with non-conducting material Yes

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine ATTACHED 1 @ 250 DIA. X 200 STROKE

Cooling Water Pumps, No. 1 @ 135 " X 200 " 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. 1 IND WORKED BY ELEC MOTOR

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

and from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Are all Sea Connections fitted direct on the skin of the ship. 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 L.P. Stroke 250 Driven by Elec. Motor

Small Auxiliary Air Compressors, No. 1 Hand. No. of stages Compressor Diameters 42 x 270 x 310 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

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 mm

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 45 kg/mm<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/mm<sup>2</sup> Working pressure by Rules 82.6 kg/cm<sup>2</sup>



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shifting

(If not, state date of approval)

14/5/25 7/1/26  
13/10/25 19/8/25

Receivers

7/1/26

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

*Trieste*

FIAT

STABILIMENTO GRANDI MOTORI

The foregoing is a correct description,

*ngl. Trieste*

*p.* Manufacturer.

Dates of Survey while building  
During progress of work in shops - -  
During erection on board vessel - -  
Total No. of visits

1925 JULY 20 AUG 7 SEPT 22 OCT 8, 15 NOV 5, 11, 18 DEC 3, 15  
1926 FEB 11, 24 MAR 9, 10, 17 APR 1, 8, 13, 14, 20  
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

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

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

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 187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000

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 on board, 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.

*Infing 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 GENOA Ltr. 11,390 =

When applied for, 2/10/26

Donkey Boiler Fee ... £  
Travelling Expenses (if any) £ 4000 =

When received, 13/11/26

Committee's Minute

FRI. 3 DEC 1926

Assigned

*See Tri. Rpt. No 7361*

*Alex Lawrence*

Engineer Surveyor to Lloyd's Register of Shipping.

*for self and B.N. Stuart.*

*L*

Lloyd's Register  
Foundation