

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 23/11/26 When handed in at Local Office 27 Nov 26 Port of Trieste

No. in Survey held at Moufalcone Date, First Survey July 6 Last Survey Nov 4 1926  
Reg. Book.

89967 on the M. S. Maria

(Number of Visits... eight)

Tons { Gross 6338  
Net 4006

Built at Moufalcone By whom built Arm. Navale Triest. Yard No. 159 When built 1926

Owners Com. L. Soc. Triest. di Navig. Port belonging to Trieste

Electric Light Installation fitted by Arm. Navale Triestino Contract No. When fitted 1926

System of Distribution Two wire ✓

Pressure of supply for Lighting 110 ✓ volts, Heating 220 ✓ volts, Power 220 ✓ volts.

Direct or Alternating Current, Lighting Direct ✓ Power Direct ✓

If alternating current system, state frequency of periods per second 50

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off yes ✓

Generators, do they comply with the requirements regarding rating yes ✓, are they compound wound yes ✓

are they over compounded 5 per cent. yes ✓, if not compound wound state distance between each generator —

Where more than one generator is fitted are they arranged to run in parallel yes ✓, is an adjustable regulating resistance fitted in series with each shunt field yes

Are all terminals accessible, clearly marked, and furnished with sockets yes ✓, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched yes ✓ Are the lubricating arrangements of the generators as per Rule yes

Position of Generators In Engine room platform port side

is the ventilation in way of the generators satisfactory yes ✓, are they clear of all inflammable material yes ✓

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators

7 ✓ and 7 ✓, are the generators protected from mechanical injury and damage from water, steam or oil yes ✓

are their axes of rotation fore and aft yes ✓

Earthing, are the bedplates and frames of the generating plant efficiently earthed yes ✓ are the prime movers and their respective generators in metallic contact yes ✓

Main Switch Boards, where placed In Engine room port side

If the generators and main switchboard are not placed in the same compartment, is each generator provided with

a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard 7 ✓

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes yes ✓

are they protected from mechanical injury and damage from water, steam or oil yes ✓, if situated near unprotected

woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards 7 ✓ and 7 ✓

are they constructed wholly of durable, non-ignitable non-absorbent materials yes ✓, is all insulation of high dielectric strength and of

permanently high insulation resistance Slate ✓, if semi-insulating material is used, are all conducting parts insulated from the slab

with mica or micawile or other non-hygroscopic insulating material, and the slab similarly insulated from its framework both poles are insulated

and is the frame effectively earthed yes ✓ Are the fittings as per Rule regarding: — spacing or shielding of live parts

yes ✓, accessibility of all parts yes ✓, absence of fuses on back of board yes ✓, proportion of omnibus

bars yes ✓, individual fuses to voltmeter, pilot or earth lamp yes ✓, connections of switches yes ✓

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Each generator

has a double pole automatic circuit breaker with interlocked switches for equalizer

serv. Automatic switch to one pole and a link switch and fuse on other pole to

each circuit for Power. Double pole link switches with fuses to each pole for the

ring Engine, Heating and Light. A double pole link switch alternate for Rotary

switch or to charge the accumulators, with fuses to each pole.

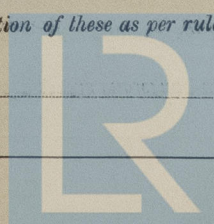
Instruments on main switchboard 16 ammeters 7 voltmeters — synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system contact for Volt

meter

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules yes ✓

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule yes ✓





**Cables:** Single, twin, concentric, or multicore *single & twin* are the cables insulated and protected as per Tables IV or V of the Rules *yes*

**Fall of Pressure,** state maximum between bus bars and any point of the installation under maximum load

**Cable Sockets and other connections,** are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets *yes*

**Paper Insulated Cables,** If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound *none*

**Cable Runs,** are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage *yes*

**Support and Protection of Cables,** state how the cables are supported and protected *Armoured or lead covered cables supported by clips*

If cables are run in wood casings, are the casings and caps secured by screws *✓*, are the cap screws of brass *✓*, are the cables run in separate grooves *✓*. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII *yes*

**Refrigerated Chambers,** if lights are fitted, are the cables and fittings in accordance with the special requirements *no lights fitted*

**Joints in Cables,** state if any, and how made, insulated, and protected *none*

**Watertight Glands and Deck Tubes,** are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands *yes*

**Bushes in Beams and Non-watertight Partitions,** where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed *yes* state the material of which the bushes are made *lead*

**Earthing Connections,** state what earthing connections are fitted and their respective sectional areas *✓*, are their connections made as per Rule *✓*

**Alternative Lighting,** are the groups of lights in the propelling machinery space arranged as per Rule *yes, also four lamps at 220V*

**Emergency Supply,** state position and method of control of the emergency supply and how the generator is driven *Secondary Batteries on Deck in special room*

**Navigation Lamps,** are these separately wired *yes*, controlled by separate switch and separate fuses *yes*, are the fuses double pole *yes*, are the switches and fuses grouped in a position accessible only to the officers on watch *yes*, has each navigation lamp an automatic indicator as per Rule *yes visual signal*

**Secondary Batteries,** are they constructed and fitted as per Rule *yes*

**Fittings,** are all fittings on weather decks, in stokeholds and engine rooms and where exposed to drip or condensed moisture, watertight *yes*, are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected *with iron casing or tubes*, are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *none*, how are the cables led *✓*, where are the controlling switches situated *✓*

**Searchlight Lamps, No. of** *none*, whether fixed or portable *✓*, are their fittings as per Rule *✓*

**Are Lamps,** other than searchlight lamps, No. of *✓*, are their live parts insulated from the frame or case *✓*, are their fittings as per Rule *✓*

**Motors,** are their working parts readily accessible *yes*, are the coils self-contained and readily removable for replacement *yes*, are the brushes, brush holders, terminals and lubricating arrangements as per Rule *yes*, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material *yes*, are they protected from mechanical injury and damage from water, steam or oil *yes*, are their axes of rotation fore and aft *yes*, if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type *✓*, if not of this type, state distance of the combustible material horizontally or vertically above the motors *✓* and *✓*

**Control Gear and Resistances,** are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule *yes*

**Lightning Conductors,** where lightning conductors are required, are these fitted as per Rule *no wooden mast*

**Ships carrying Oil having a Flash Point less than 150° F.** Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings *✓*, If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office *✓*

PARTICULARS OF GENERATING PLANT.									
DESCRIPTION OF GENERATOR.	No of	RATED AT			DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.			
		Kilowatts.	Volts.	Ampères.		Fuel Used.	Flash Point of Fuel.		
MAIN	3	70	220	320	250	First Diesel 2C 5A	diesel oil		
AUXILIARY	1	16	220	74	425	Hot bulb motor	"		
EMERGENCY	Secondary Batter.	220/110	32/40						
ROTARY TRANSFORMER	1	21Hx13Kw	220/110	82/123	1400	21H electric motor			

LIGHTING AND HEATING CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor Sq. mm.	COMPOSITION OF STRAND.		Total Maximum Current Amperes.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	1	300	61	2.5	320	40	rubber	Armoured
	EQUALISER CONNECTIONS		160x21	37-19	2.35-1.2	-	-	rubber	Armoured
	AUXILIARY GENERATOR	1	38	19	1.6	74	30	rubber	Armoured
24	Secondary Batteries		11	7	1.37	32-40	150	rubber	Armoured
1	ROTARY TRANSFORMER...	1	51-74	19-37	1.9-1.5	82-123	20	rubber	Armoured
	AUXILIARY SWITCHBOARDS								
12	ENGINE ROOM 220V	1	1.3	3	0.75	7	60	rubber	Armoured
17	ENGINE ROOM 110V	1	4.5	7	0.9	13	100	rubber	Armoured
18	ACCOMMODATION CREW	1	4.5	7	0.9	16	300	rubber	Armoured
20	" OFFICERS	1	4.5	7	0.9	17	400	rubber	Arm. & lead covered
21	Bridge House	1	4.5	7	0.9	14	400	rubber	Arm. & lead covered
6	Heaters to Aux. SBI	1	51	19	1.9	87	250	rubber	Armoured
7	Heaters to Aux. SBI	1	51	19	1.9	82	150	rubber	Armoured
SBI	to Second SBI	1	1222	7-19	1.5-1.2	30-52	100	rubber	Armoured
22	WIRELESS	1	4.5	7	0.9	14	150	rubber	Armoured
23	SEARCHLIGHT Plug	1	25	19	1.3	60	300	rubber	Armoured
21	MASTHEAD LIGHT	1	1.3	1	1	1	300	rubber	Armoured
21	SIDE LIGHTS	1	1.3	1	1	1	60	rubber	Armoured
21	COMPASS LIGHTS	1	1.3	1	1	0.3	25	rubber	Lead covered
21	POOP LIGHTS	1	1.3	1	1	1	300	rubber	Armoured
19	CARGO LIGHTS	1	4.5	7	0.9	12	250	rubber	Armoured
6 from SBI	Heaters	1	1.3	1	1	5.5	150	rubber	Lead covered
7 from SBI	HEATERS	1	1.3	1	1	5.5	150	rubber	Lead covered

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor Sq. mm.	COMPOSITION OF STRAND.		Total Maximum Current Amperes.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
10 (28)	BALLAST PUMP	1	97	37	1.85	135	80	rubber	Armoured
9 (30)	MAIN BILGE LINE PUMPS	1	65	19	2.10	118	80	rubber	Armoured
9 (37)	Discharge Pump	1	4.5	7	0.9	20	40	rubber	Armoured
10 (23-24)	Refrigerator Drive	2	4.5	7	0.9	16	60	rubber	Armoured
9 (31)	SANITARY PUMP	1	7	7	1.10	28	90	rubber	Armoured
9 (32)	CIRC. SEA WATER PUMPS	1	38	19	1.6	66	30	rubber	Armoured
	CIRC. FRESH WATER PUMPS								
11	AIR COMPRESSOR	1	388	91	2.35	338	60	rubber	Armoured
	FRESH WATER PUMP								
9 (33)	ENGINE TURNING GEAR	1	22	19	1.2	59	40	rubber	Armoured
9 (27)	ENGINE REVERSING GEAR	1	38	19	1.6	70	30	rubber	Armoured
10 (26)	LUBRICATING OIL PUMPS	1	65	19	2.10	115	60	rubber	Armoured
4	OIL FUEL TRANSFER PUMP	1	129	37	2.1	200	400	rubber	Armoured
2	WINDLASS 1.4. rating	6	300	61	2.5	410	90	rubber	Armoured
3	WINCHES, FORWARD S.B.	7	388	91	2.35	507	90	rubber	Armoured
	WINCHES, AFT S.B.								
	STEELING GEAR								
5	a) MOTOR GENERATOR	1	22	19	1.2	48	250	rubber	Armoured
9 (34-35)	b) MAIN MOTOR	2	4.5	7	0.9	20	60	rubber	Armoured
	WORKSHOP MOTOR								
9	VENTILATING FANS	10	388	91	2.35	389	40	rubber	Armoured
10	To Aux. SBI for Power	4	242	61	2.3	284	70	rubber	Armoured
223 *	From Aux. SB to 15 HP Winch	8	22	19	1.2	59		rubber	Armoured
223 *	From Aux. SB to 22 HP Winch	4	51	19	1.9	86		rubber	Armoured
3 *	From Aux. SB to 25 HP Winch	1	51	19	1.9	93		rubber	Armoured
9 (36)	Oil pump for Galley	1	6	7	1.1	16	120	rubber	Armoured
9 (32)	Oil Filter	1	4.5	7	0.9	4	30	rubber	Armoured
8	Refrigerating Eng.	1	97	37	1.85	146	60	rubber	Armoured

\* 1/2 hour rating



All Conductors are of annealed copper conforming to British Standard Specification No. 7.

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

OFFICINE ELETTROMECCANICHE

Electrical Engineers.

Date 26 nov. 1926

#### COMPASSES.

Distance between electric generators or motors and standard compass 30 feet

Distance between electric generators or motors and steering compass 35 feet

The nearest cables to the compasses are as follows:—

A cable carrying 6 Amperes 8 feet from standard compass 8 feet from steering compass.

A cable carrying Amperes feet from standard compass feet from steering compass.

A cable carrying 0.3 Amperes in the feet from standard compass in the feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power yes

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted no

The maximum deviation due to electric currents was found to be ~~none~~ degrees on course in the case of the standard compass, and degrees on course in the case of the steering compass.

CANTIERE NAVALE TRIESTINO

phylodofano

phylodofano

Builder's Signature.

Date

Is this installation a duplicate of a previous case no If so, state name of vessel —

General Remarks (State quality of workmanship, opinions as to class, &c.)

This installation has been made in accordance with the Rules. The material and workmanship are good; the whole installation and generators have been tested under full working condition and found satisfactory.

It is submitted that this vessel is eligible for THE RECORD. Elec. light

DUAL CLASS

L.R. & R.I.

11/12/26

Total Capacity of Generators 226 Kilowatts.

The amount of Fee ... £ 4217.-

When applied for, Nov 27 1926

Travelling Expenses (if any) £

When received, 10/1/27

Committee's Minute ERI. 3 DEC 1926

Assigned

Elec. Light

phylodofano

Surveyor to Lloyd's Register of Shipping