

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

2 JAN 1927

Date of writing Report *Dec 22 1926* When handed in at Local Office *Dec 18 1926* Port of *Trieste*

No. in Survey held at *Moufalcone* Date, First Survey *July 6* Last Survey *Dec 19 1926*  
(Number of Visits.....)

Reg. Book. *76737* on the *M. S. Marin Samido* Tons { Gross *5958*  
Net *3757*

Built at *Moufalcone* By whom built *Cantiere Nav. Triest.* Yard No. *158* When built *1926*

Owners *Soc. Venetiana di Navig. a Vap.* Port belonging to *Venice*

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

System of Distribution *Two wire* ✓  
Pressure of supply for Lighting *110* ✓ volts, Heating \_\_\_\_\_ volts, Power *220* ✓ volts.

Direct or Alternating Current, Lighting *direct* ✓ Power *direct* ✓

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

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* ✓

Position of Generators *In Engine room platform port side* ✓, Are the lubricating arrangements of the generators as per Rule *yes* ✓

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 % and %

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

are their axes of rotation fore and aft *yes* ✓, are the prime movers and their respective generators in metallic contact *yes* ✓

Main Switch Boards, where placed *In Engine room near generators* ✓

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 %

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 % and %

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 *yes* ✓

if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework *yes* ✓

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 two pole automatic circuit breaker with interlocked switch for equalizer. Automatic switch to one pole and a knife switch and fuse on other pole to each circuit for power*

*Double pole knife switches with fuse to each pole for steering engine, light and starting transformer. Double pole knife switch with fuse to each pole for each outgoing circuit for light*

Instruments on main switchboard *10* ammeters *5* 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 *Voltmeter connections*

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 *none*, 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 */*.

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements *none*

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 armoured 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*

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven *none*

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 lam. an automatic indicator as per Rule *yes*

Secondary Batteries, are they constructed and fitted as per Rule *none*

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 */*.

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected */*.

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 */*.

Arc 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 *yes*

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.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	3	66	220	300	450	B&W. (AEG) via	kerosene oil	
AUXILIARY						rel engine		
EMERGENCY								
ROTARY TRANSFORMER	1	15 1/2 / 13	220 / 110	83 / 118	1400	21 HP Electric Motor		

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current Amperes.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
1.2.3	MAIN GENERATOR	1	300	61	2.5	300	60	rubber	Armoured
	EQUALISER CONNECTIONS	1	151	37	2.3			rubber	Armoured
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
10	ROTARY TRANSFORMER	1	51 1/4	19 1/2	1.9 1/5	83 1/18	90	rubber	Armoured
	AUXILIARY SWITCHBOARDS								
11(1)	ENGINE ROOM	1	6.6	7	1.1	23	100	rubber	Armoured
	BOILER ROOM								
12(3)	ACCOMMODATION for Officers	1	6.6	7	1.1	25	400	rubber	Arm & lead covered
13(5)	" Passengers	1	4	7	0.9	15	450	rubber	Arm & lead covered
14(4)	" Crew	1	6.6	7	1.1	23	400	rubber	Arm & lead covered
16(6)	Navigation	1	4	7	0.9	6	400	rubber	Armoured
17(7)	WIRELESS	1	4	7	0.9	14	150	rubber	Armoured
18(8)	SEARCHLIGHT 7 1/2	1	25	19	1.3	60	300	rubber	Armoured
16	MASTHEAD LIGHT	1	1.3	1	1	1	250	rubber	Armoured
16	SIDE LIGHTS	1	1.3	1	1	1	60	rubber	Armoured
16	COMPASS LIGHTS	1	1.3	1	1	0.3	25	rubber	Lead covered
16	POOP LIGHTS	1	1.3	1	1	0.5	250	rubber	Armoured
15(2)	CARGO LIGHTS	1	4	7	0.9	12	250	rubber	Armoured
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current Amperes.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP	1	51	19	1.9	99	80	rubber	Armoured
5(29)	MAIN BILGE LINE PUMPS	1	4	7	0.9	19	80	rubber	Armoured
5(26)	GENERAL SERVICE PUMP	1	11	7	1.9	39	80	rubber	Armoured
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
4(23)	CIRC. SEA WATER PUMPS	1	51	19	1.9	99	50	rubber	Armoured
	CIRC. FRESH WATER PUMPS								
5(28)	AIR COMPRESSOR	1	4	7	0.9	8	80	rubber	Armoured
5(28)	FRESH WATER PUMP	1	6.6	7	1.1	28	60	rubber	Armoured
4(30)	ENGINE TURNING GEAR	1	6.6	7	1.1	28	60	rubber	Armoured
	ENGINE REVERSING GEAR								
(23, 24)	LUBRICATING OIL PUMPS	Coupled to circulating and transfer pumps							
4(24)	OIL FUEL TRANSFER PUMP	1	51	19	1.9	99	80	rubber	Armoured
9	WINDLASS 1.5 h. taking	1	129	37	2.1	200	450	rubber	Armoured
6 X	WINCHES, FORWARD S.B.	6	300	61	2.5	402	90	rubber	Armoured
7 X	WINCHES, AFT S.B.	7	396	91	2.4	464	90	rubber	Armoured
	STEERING GEAR								
8	(a) MOTOR GENERATOR	1	22	19	1.2	48	250	rubber	Armoured
	(b) MAIN MOTOR								
4(19-20)	WORKSHOP MOTOR	2	4	7	0.9	20	60	rubber	Armoured
	VENTILATING FANS								
4	Bil Filter	1	1.3	1	1	6	30	rubber	Armoured
5(27)	Refrigerator	1	4	7	0.9	16	80	rubber	Armoured
4	To Aux. S.B. I for Power	5	196	37	2.6	220	70	rubber	Armoured
5	To Aux. S.B. II for Power	5	129	37	2.1	220	70	rubber	Armoured
6 & 7	From Aux. S.B. to 15 HP winches	8	25	19	1.3	59	200	rubber	Armoured
6 & 7	From Aux. S.B. to 22 HP winch	5	51	19	1.9	86	200	rubber	Armoured
X	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

*Signature*

Electrical Engineers.

Date 24 dic. 1926

COMPASSES.

Distance between electric generators or motors and standard compass 20 feet

Distance between electric generators or motors and steering compass 25 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 0.3 Amperes in the feet from standard compass in the feet from steering compass.

A cable carrying Amperes feet from standard compass 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 degrees on course in the case of the standard compass, and degrees on course in the case of the steering compass.

CANTIERE NAVALE TRIESTINO

Builder's Signature.

Date

Is this installation a duplicate of a previous case yes

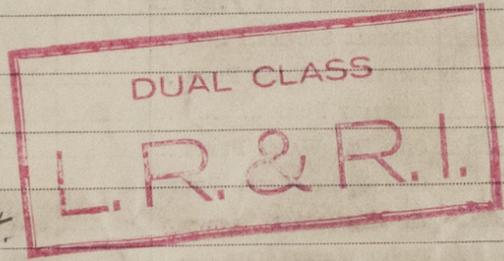
If so, state name of vessel

MS Col di Lana No 155 CNT  
MS Monte Piava No 156 CNT  
MS Tergestina No 157 CNT

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, generators and motors have been tested under full working condition and found satisfactory.

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



Total Capacity of Generators 198 Kilowatts.

The amount of Fee ... £ 3968. When applied for, Dec 31 1926

Travelling Expenses (if any) £ : : When received, 4/3/27

*Signature*  
Surveyor to Lloyd's Register of Ships

Committee's Minute

FRI. 7 JAN 1927

Assigned

*Elec Light*

FRI. 28 JAN 1927

Im. 126.—Transfer. (The Surveys are requested not to be on or below the space for Committee's Minute.)



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