

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 13 Aug 1926

Date of writing Report Aug 3 1926 When handed in at Local Office Aug 5 1926 Port of Trieste

No. in Survey held at Moufalone Date, First Survey 24<sup>th</sup> March Last Survey July 27 1926  
Reg. Book. 061 on the M. S. Monte Diana (Number of Visits 11)

Tons { Gross 5890  
Net 3715

Built at Moufalone By whom built Aut. Nav. Triest. Yard No. 156 When built 1926

Owners Navig. Gen. Gerolovich & Co. Port belonging to Trieste

Electric Light Installation fitted by Cantiera Navale Triestina 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

alternating current system, state frequency of periods per second 1.  
As 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 1.

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 E. P. platform, two generator port, one starboard.  
Is the ventilation in way of the generators satisfactory yes, are they clear of all inflammable material yes  
situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators 1. and 1., 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 belylats 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 fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard 1.

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 1. and 1.  
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 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

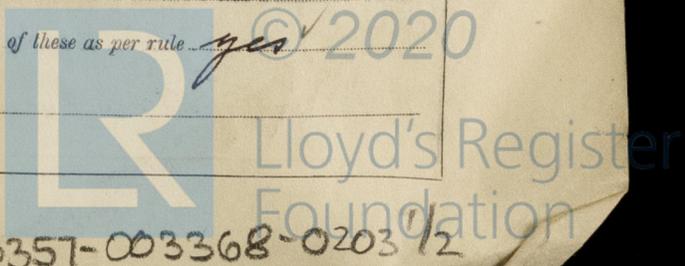
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Each generator has a two pole automatic circuit breaker with interlocked switches for equalizer. Automatic switch to one pole and a link switch and fuse on other pole to each circuit for Power. Double pole link switches with fuses to each pole for Heating engine, Heating and lighting. Double pole link switch and fuses for Rotary Transformer

Instruments on main switchboard 10 ammeters 5 voltmeters 20 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 contacts for voltmeters

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 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 hard wood for lead covered cables

Earthing Connections, state what earthing connections are fitted and their respective sectional areas none

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 lamp an automatic indicator as per Rule yes

Secondary Batteries, are they constructed and fitted as per Rule ✓.

Fittings, are all fittings on weather decks, in storerooms 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 none

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 ✓.

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

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.

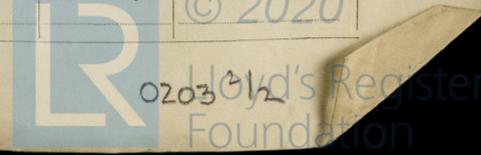
DESCRIPTION OF GENERATOR	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE	
		Kilowatts	Volts	Ampères	Revs. per Min.		Fuel Used	Flash Point of Fuel
MAIN	3	66	220	300	400	B & W (AEG) Diesel	Gasol Oil	
AUXILIARY						H.C. S. & Co.		
EMERGENCY								
ROTARY TRANSFORMER	1	15 1/2 / 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. mm	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 7/4	19 3/7	1.9 1/5	83 1/18	90	rubber	Armoured
11	ENGINE ROOM	1	4	7	0.9	15	100	rubber	Armoured
	BOILER ROOM								
12	ACCOMMODATION Officers	1	4	7	0.9	16	400	rubber	Arm. & lead covered
13	" Engineers	1	4	7	0.9	18	300	rubber	Arm. & lead covered
14	" Crew	1	4	7	0.9	11.5	300	rubber	Arm. & lead covered
18	220V lamps in E.R.	1	1.3	3	0.75	3	100	rubber	Armoured
16	WIRELESS	1	4	7	0.9	14	150	rubber	Armoured
17	SEARCHLIGHT plug	1	25	19	1.3	60	300	rubber	Armoured
12	MASTHEAD LIGHT	1	1.3	1	1	1	250	rubber	Armoured
12	SIDE LIGHTS	1	1.3	1	1	1	60	rubber	Armoured
12	COMPASS LIGHTS	1	1.3	1	1	0.3	25	rubber	Lead covered
12	POOP LIGHTS	1	1.3	1	1	1	250	rubber	Armoured
15	CARGO LIGHTS	1	4	7	0.9	14	250	rubber	Armoured
	ARC LAMPS								
19-20	HEATERS 220 V	1	51 & 16	19 & 7	1.9 & 1.7	94 & 40	200	rubber	Arm. & 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				
5	BALLAST PUMP	1	51	19	1.9	99	80	rubber	Armoured
5	MAIN BILGE LINE PUMPS	1	11.5	7	1.5	39	80	rubber	Armoured
5	GENERAL SERVICE PUMP	1	4	7	0.9	19	50	rubber	Armoured
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
4	CIRC. SEA WATER PUMPS	2	51	19	1.9	99	50	rubber	Armoured
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
5	FRESH WATER PUMP	1	4	7	0.9	8	80	rubber	Armoured
4	ENGINE TURNING GEAR	1	11.5	7	1.5	36	60	rubber	Armoured
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
5	OIL FUEL TRANSFER PUMP	1	25	19	1.3	59	60	rubber	Armoured
9	WINDLASS 1. H. 2. 3. 4. 5.	1	129	37	2.1	200	450	rubber	Armoured
6x	WINCHES, FORWARD S.B.	6	300	61	2.5	382	90	rubber	Armoured
7x	WINCHES, AFT S.B.	7	395	91	2.4	464	90	rubber	Armoured
8	STEERING GEAR	1	22	19	1.2	48	250	rubber	Armoured
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR								
4	WORKSHOP MOTOR	2	4	7	0.9	20	60	rubber	Armoured
	VENTILATING FANS								
4	To Aux. S.B. I for Power	7	243	61	2.3	267	40	rubber	Armoured
5	To Aux. S.B. II for Power	6	196	37	2.6	230	70	rubber	Armoured
4 & 5	From Aux. S.B. to 15 HP Winch	8	25	19	1.3	59	200	rubber	Armoured
4 & 5	From Aux. S.B. to 22 HP Winch	5	51	19	1.9	86	200	rubber	Armoured
4	Oil Filter	1	4	7	0.9	8	30	rubber	Armoured
5	Refrigerator	1	4	7	0.9	16	50	rubber	Armoured
4	Oil pump for bilge	1	4	7	0.9	16	120	rubber	Armoured
x	1/2 horse 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.

Cantiere Navale Triestino

*R. Sforzotti*

Electrical Engineers.

Date 5 agosto 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 \_\_\_\_\_

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 7 degrees on 1 course in the case of the standard compass, and \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the steering compass.

Cantiere Navale Triestino

*M. H. H. H.*

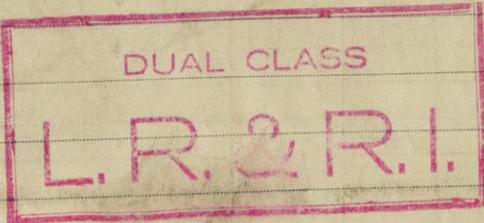
Builder's Signature.

Date 5 agosto 1926

Is this installation a duplicate of a previous case yes If so, state name of vessel M.S. Col di Lana (155 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 and generators have been tested under full working condition and found satisfactory.*



It is submitted that  
 this vessel is classed  
 THE RECORD.

*Elec. Light.*

*14/8/26.*

Total Capacity of Generators 198 Kilowatts.

The amount of Fee ... £4 5/157. — When applied for, Aug 10. 19. 26

Travelling Expenses (if any) £ ✓ : When received, 25. 11. 26

*R. Sforzotti*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 17 AUG 1926

Assigned Elec Light

Im. 1.26. — Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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