

REPORT ON ELECTRIC FITTINGS

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

30 OCT 1925

Date of writing Report 22/10/1925 When handed in at Local Office 27/10/1925 Port of Trieste

No. in Survey held at Trieste Date, First Survey Jan 15 Last Survey Oct 7 1925
Reg. Book. 25688 on the MOTOR VESSEL "LEME" (Number of Visits... ten...)

Built at Trieste By whom built Stale Tecnico Triestino Yard No. 743 When built 1925

Owners Navigazione Libera Triestina Port belonging to Trieste

Electric Light Installation fitted by Stabilimento Tecnico Triestino Contract No. When fitted 1925

System of Distribution *Two wires*Pressure of supply for Lighting 110 volts, Heating ☒ volts, Power 110 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 overload *Yes*, are they compound wound *No*are they over compounded 5 per cent. ☒ if not compound wound state distance between each generator 500% nearestWhere 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 and clearly marked *Yes*, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited *Yes*Position of Generators *Port side engine room - 2 on platform - 1 (steam driven) on flat above*, are they clear of all inflammable material *Yes*is the ventilation in way of the generators satisfactory *Yes*, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generatorsand ☒ are the generators protected from mechanical injury and damage from water, steam or oil *Yes*, are their axis 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, above diesel driven generator*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, incombustible 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 connected to one pole insulated from the slab with mica or micanite and the slab similarly insulated from its framework *Yes*, and is the frame effectively earthed *Yes*Are the following fittings as per Rule, viz.:— 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. *The generators**have 2-pole overload circuit breakers, with regulating gear and a time relay, and the circuits have quick break knife switches.*Instruments on main switchboard 5 ammeters 2 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

*Campos.*Switches, Circuit Breakers and Fusible Out-outs, do these comply with the requirements of the Rules *Yes*Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule *Yes*

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Foundation

Insulation of Cables, state type of cables, single or twin *both* are the cables insulated and protected as per Tables III or IV of the Rules *Yes.*

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *2-3 Volts*

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 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 *Yes.*

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 *with iron clips and when necessary wooden nut shell iron.*

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

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements *Yes.*

Joints in Cables, state if any, and how made, insulated, and protected *✓*

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 Positions, 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 *Wood.*

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 *✓*

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.*, are separate screens provided for the use of oil and electric side lights *Yes.*

are separate oil lanterns provided for the mast head lights and side lights *Yes.*

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever 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 *✓*, 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 axis of rotation fore and aft *all except low for F.W. pumps.*

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 *Yes.*, 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 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.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	2	32.5	110	478	930	Diesel engine & steam up.	Diesel oil	Below 150° F.
AUXILIARY ...	1	50	110	454	320	Steam engine		
EMERGENCY ...	1							
ROTARY TRANSFORMER	✓							

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.				
	MAIN GENERATOR...	2	310	61	2.6	478	8	Paper.	Lead & armoured.
	AUXILIARY GENERATOR	2	310	61	2.6	454	8	"	"
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS	2	310	61	2.6	454	20	"	"
1 fitting	ENGINE ROOM	1	6	7	1.1	296	34	Rubber.	"
3	Boiler Room	1	4	7	0.9	9.4	45	"	"
4	Engine room	1	4	7	0.9	12.7	35	"	"
5	Boiler	1	6	7	1.1	14.6	130	"	"
6	Navigation lights	1	4	7	0.9	2.5	130	"	"
7	Cargo lights forward	1	10	7	1.8	27.8	120	"	"
	Central lamps.	1	1.5	1	1.6	10.5	90	"	"
5 power	WIRELESS	1	6	7	1.1	15	120	"	"
	SEARCHLIGHT								
6 light	MASTHEAD LIGHT	1	1.5	1	1.6	0.5	200	"	"
6	SIDE LIGHTS	1	1.5	1	1.6	0.5	18	"	"
5	COMPASS LIGHTS	1	1.5	1	1.6	0.2	10	"	Lead.
6	POOP LIGHTS	1	1.5	1	1.6	0.5	210	"	Lead & armoured.
2	CARGO LIGHTS aft.	1	10	7	1.3	23.8	90	"	"
	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.				
12 power	BALLAST PUMP	1	2x95	37	1.85	310	85	Paper.	Lead & armoured.
17	MAIN BILGE LINE PUMPS	1	120	37	2.1	162	80	Rubber.	"
13	GENERAL SERVICE PUMP	1	70	37	1.6	115	75	"	"
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS								
14.5	CIRC. FRESH WATER PUMPS	2	16	7	1.8	46	70	"	"
10	AIR COMPRESSOR	1	2x240	61	2.85	510	80	"	"
	FRESH WATER PUMP								
9	ENGINE TURNING GEAR	1	25	19	1.3	60	30	"	"
	ENGINE REVERSING GEAR								
7.8	LUBRICATING OIL PUMPS	2	150	37	2.35	200	36	"	"
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
3	STEERING GEAR	1	75	37	1.6	170	130	Paper.	"
2	WORKSHOP MOTOR	1	16	7	1.9	46	80	Rubber.	"
6	VENTILATING FANS	1	16	7	1.9	50	50	"	"
8 fitting	as separate forward	1	6	7	1.1	16.8	30	"	"
8	as separate aft.	1	6	7	1.1	8.8	40	"	"
1 power	Refinery engine	1	6	7	1.1	28	30	"	"

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.

Marie Dvorsey.

Electrical Engineers.

Date *23.10.1925*

COMPASSES.

Distance between electric generators or motors and standard compass

Distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

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

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

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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

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.

L. J. Smith

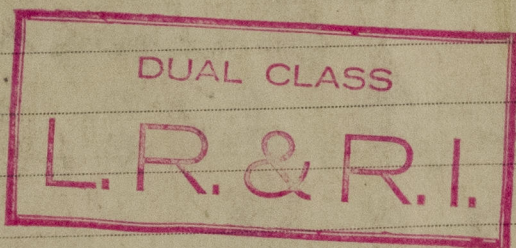
Builder's Signature.

Date

Is this installation a duplicate of a previous case *to* If so, state name of vessel *✓*

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

The electrical installation of this vessel has been fitted in accordance with the requirements of the Rules. The generator and motor have been tested individually and in conjunction the installation was tested under full working conditions and found satisfactory.



Elec. Light

30/10/25

Total Capacity of Generators *155* Kilowatts

The amount of Fee ... *£4117* : { When applied for, *Oct 22 1925*

Travelling Expenses (if any) £ *✓* : { When received, *Oct 22 1925*

Prof. Munn & V. Lockney.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned