

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

20 DEC 1926

Date of writing Report Dec 1 1926 When handed in at Local Office Dec 17 1926 Port of Trieste

No. in Survey held at Trieste Date, First Survey June 5 Last Survey Nov 21 1926
 Reg. Book. 90701 on the Twin Screw, Motor Vessel. "ROMOLO" (Number of Visits 15)

Built at Trieste By whom built Stabilimenti Tecnici Yard No. 748 When built 1926
 Owners Lloyd Triestino Port belonging to Trieste

Electric Light Installation fitted by Stabilimenti Tecnici 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

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, three on port side, one on starboard 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 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.

Earthing, are the bed-plates 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 Forward end of engine room, transversely in ship.

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 Marble, 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 Generators -

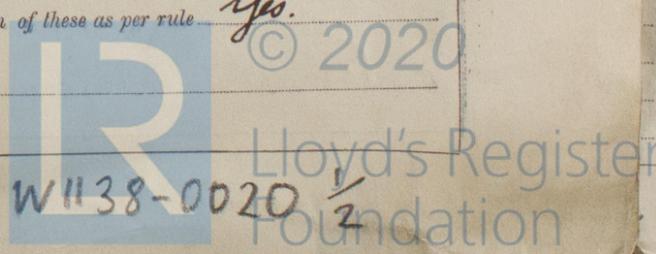
double pole circuit breakers with maximum and reverse current trips and with equalizer switches electrically arranged as per Rule. Outgoing circuits: two pole knife switches with quick release.

Instruments on main switchboard 4 ammeters 4 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 Lamps to earth.

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 *4 volts*

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 *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 *supported by galvanised iron clips and protected when necessary with sheet 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 VIII *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 *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 *wood.*

Earthing Connections, state what earthing connections are fitted and of what effective sectional areas *Dynamo baseplate secured to ship structure. Also framework of main switchboard.*

are their connections made as per Rule *Yes.*

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 *No.*

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 *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 stashed in close proximity to them; if so, how are they protected *lamps in cargo spaces protected by cage.*

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

how are the cables led *Yes.*

where are the controlling switches situated *Yes.*

Searchlight Lamps, No. of *one*, whether fixed or portable *portable*, are their fittings as per Rule *Yes.*

Are Lamps, other than searchlight lamps, No. of *none*, are their live parts insulated from the frame or case *Yes.*, are their fittings as per Rule *Yes.*

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 *Yes.*, if not of this type, state distance of the combustible material horizontally or vertically above the motors *Yes.* and *Yes.*

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

Lighting Conductors, where lighting 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 *Yes.*

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office *Yes.*

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE	
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	4	66	220	300	420	Two cylinder Diesel engine	Diesel oil	Above 150° F
AUXILIARY	1	160	220	730		4 cy. 2 stroke Diesel engine	Diesel oil	Above 150° F
EMERGENCY	1							
ROTARY TRANSFORMER	2	9.40	110	364	1500			
		M. 60HP	220	226				

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor Sq. mm.	COMPOSITION OF STRAND.		Total Maximum Current in Amps.	Approximate Length (Lead and Return) in M.	Insulated with	HOW PROTECTED.
				No.	Diameter in mm.				
	MAIN GENERATOR	1	324	61	2.5	300	44 m	I. R.	Lead & steel wire
	EQUALISER CONNECTIONS		196	37	2.6		32 "	do	do
	AUXILIARY GENERATOR	1							
	EMERGENCY GENERATOR	1							
	ROTARY TRANSFORMER	2	138	37	2.1	364	19 m	do	do
	TRANSFORMER	1	161	37	2.65	226	19 m	do	do
	ENGINE ROOM	2	14	4	1.5	32	15 m	do	Lead & steel wire net.
	BOILER ROOM								
	ACCOMMODATION								
	CIRCUIT No. 2 - CREW SPACES	1	9.3	4	1.3	2772	190 m	do	do
	3 OFFICERS' STALEWAYS	1	25	19	1.3	2184	154 m	do	Lead & steel wire
	9 PASSENGERS' CABINS	1	9.3	4	1.3	2688	110	do	Lead & steel wire net.
	TO AUXILIARY SWITCHBOARDS								
	CIRCUIT No. 4 TO BEARDS	1	9.3	4	1.3	2184	114	do	do
	5	1	14	4	1.5	2354	90	do	do
	7	1	6.6	4	1.1	1600	150	do	do
	10	1	25	19	1.3	3824	40	do	Lead & steel wire
	11	1	25	19	1.3	2660	40	do	do
	18	1	14	4	1.5	2100	98	do	Lead & steel wire net.
	WIRELESS	1	6.4	4	1.1	1500	125	do	do
	SEARCHLIGHT	1	25	19	1.3	455	184	do	Lead & steel wire
	MASTHEAD LIGHT	1	2	1	1.8	15	110	do	Lead & steel wire net.
	SIDE LIGHTS	2	2	1	1.6	3	30	do	do
	COMPASS LIGHTS	1	2	1	1.6	16	10	do	do
	POOP LIGHTS	1	2	1	1.6	15	220	do	do
	CARGO LIGHTS	5	14	4	1.5	954	25	do	do
	ARO LAMPS	None						do	do
	HEATERS	Current No. 1	16	4	1.7	489	62	do	do

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor Sq. mm.	COMPOSITION OF STRAND.		Total Maximum Current in Amps.	Approximate Length (Lead and Return) in M.	Insulated with	HOW PROTECTED.
				No.	Diameter in mm.				
	BALLAST PUMP	1	51	19	1.85	94	38	I. R.	Lead & steel wire
	MAIN BILGE LINE PUMPS	1	6.4	4	1.1	282	32	do	do
	GENERAL SERVICE PUMP	1	25	19	1.3	56.5	44	do	do
	EMERGENCY BILGE PUMP	1							
	SANITARY PUMP	1							
	CIRC. SEA WATER PUMPS	2	75	37	1.5	132	14	do	do
	CIRC. FRESH WATER PUMPS	1							
	AIR COMPRESSOR	1							
	FRESH WATER PUMP	2	2.5	1	1.8	7.55	32	do	do
	ENGINE TURNING GEAR	2	6.7	4	1.1	31.8	60	do	do
	ENGINE REVERSING GEAR	1							
	LUBRICATING OIL PUMPS	2	38	19	1.6	75.5	18	do	do
	OIL FUEL TRANSFER PUMP	1	25	19	1.3	56.5	14	do	do
	WINDLASS	1	15	37	1.6	257	164	Paper.	do
	WINCHES, FORWARD	A. 1	150	37	2.35	314	130	do	do
		B. 1	38	19	1.6	55	80	do	do
		C. 1	38	19	1.6	55	80	do	do
	WINCHES, AFT	D. 1	128	37	2.1	252	132	do	do
	STEERING GEAR								
	(a) MOTOR GENERATOR	1	38	19	1.6	130	236	do	do
	(b) MAIN MOTOR								
	WORKSHOP MOTOR	2	2.5	1	1.8	12	40	I. R.	do
	VENTILATING FANS	8	9.3	4	1.3	288	60	do	Lead & steel wire net.
	do	45	9.3	4	1.3	174	80	do	do

All Conductors are of annealed copper conforming to British Standard Specification No. 7. *Yes.*
 The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
 The foregoing is a correct description.

Luis Maurizio Montenegro

Electrical Engineers.

Date *11-XII-26*

COMPASSES.

Distance between ~~electric generators or motors~~ and standard compass *(wireless telegraphy rotary cover)* *12 m*
 Distance between electric generators or motors and steering compass *9 m*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>5</i> Amperes	<i>7</i> feet	from standard compass	<i>5</i> feet	from steering compass.
A cable carrying	<i>13</i> Amperes	<i>7</i> feet	from standard compass	<i>5</i> feet	from steering compass.
A cable carrying	<i>40</i> Amperes	<i>8</i> feet	from standard compass	<i>6</i> 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 degrees on course in the case of the standard

compass, and degrees on course in the case of the steering compass.

Stabilimento Tecnico Triestino

M. B...

Builder's Signature.

Date *11-XII-26*

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. *The electric installation of*)

this vessel has been fitted on board in accordance with the requirements of the Rules. The generators and motors were tested in the shops, before being fitted on board, and on completion the whole installation was tested under full working conditions, and found satisfactory.

wireless fitted.

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



W.D.
28/12/26

Total Capacity of Generators *264* Kilowatts. *total*

The amount of Fee ... *Lai 6405.-* *100* *424* *total*
 When applied for, *17 Dec. 19. 26*

Travelling Expenses (if any) £ : : *11. 3. 27*
 When received, *11. 3. 27*

V. Lockrey.
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute *WED. 29 DEC 1926*

Assigned *Elec Lt*

Im. 1. 26.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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