

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report *Dec 1* 19*26* When handed in at Local Office *Dec 17* 19*26* Port of *Trieste*

No. in Survey held at *Trieste* Date, First Survey *June 5* Last Survey *Nov 21* 19*26*
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* Tons { Gross *9780*
Net *6084*
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 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 *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. ✓*

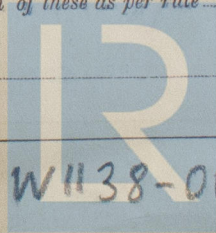
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches *Generators - double pole circuit breakers with maximum and reverse current trips and with equalizer switches electrically arranged as per Rule. Outgoing circuits: two pole knife 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. ✓*



© 2020

Lloyd's Register Foundation

WH38-0020 1/2

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 air resistance sectional areas dynamic test plate 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 stacked 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.

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 Yes.

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

DESCRIPTION OF GENERATOR.	No of	PARTICULARS OF GENERATING PLANT.				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE	
		Kilowatts.	Volts.	Ampères.	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 flat. fitted 5.2.24		
EMERGENCY	1							
ROTARY TRANSFORMER	2	9. 40	110	364	1500			
		M. 60 HP	220	226				

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor Sq. mm.	COMPOSITION OF STRAND.		Total Maximum Current Ampères.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter in.				
	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	9. 128	37	2.1	364	19 m	do	do
	TRANSFORMER	2	161	37	2.65	226	19 m	do	do
	ENGINE ROOM	2	14	7	1.5	32	15 m	do.	Lead & steel wire net.
	BOILER ROOM								
	ACCOMMODATION								
	CIRCUIT NO. 2 - CREW SPACES	1	9.3	7	1.3	27.72	190 m	do	do
	3 OFFICERS' ALLEYS	1	25	19	1.3	21.84	154 m	do.	Lead & steel wire
	9 PASSENGERS CABINS	1	9.3	7	1.3	26.88	110	do	Lead & steel wire net.
	TO AUXILIARY SWITCHBOARDS								
	CIRCUIT NO. 4 TO BEARDS	1	9.3	7	1.3	21.84	114	do	do
	5	1	14	7	1.5	23.54	90	do	do
	7	1	6.6	7	1.1	16.08	150	do	do
	10	1	25	19	1.3	38.24	40	do	Lead & steel wire
	11	1	25	19	1.3	26.60	40	do	do
	18	1	14	7	1.5	21.00	98	do	Lead & steel wire net.
	WIRELESS	1	6.4	7	1.1	15.00	125	do	do
	SEARCHLIGHT	1	25	19	1.3	4.55	184	do	Lead & steel wire
	MASTHEAD LIGHT	1	2	1	1.8	1.5	118	do	Lead & steel wire net.
	SIDE LIGHTS	2	2	1	1.6	3	30	do	do
	COMPASS LIGHTS	1	2	1	1.6	1.6	10	do	do
	POOP LIGHTS	1	2	1	1.6	1.5	220	do	do
	CARGO LIGHTS	5	14	7	1.5	9.54	25	do	do
	ARO LAMPS	None							
	HEATERS	Current No. 1	16	7	1.7	48.9	62	do	do

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor Sq. mm.	COMPOSITION OF STRAND.		Total Maximum Current Ampères.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter in.				
	BALLAST PUMP	1	51	19	1.85	9.4	38	I. R.	Lead & steel wire
	MAIN BILGE LINE PUMPS	1	6.7	7	1.1	28.2	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	10	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	7	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	7.5	37	1.6	25.7	164	Paper.	do
	WINCHES, FORWARD	3	160	37	2.35	314	130	do	do
	WINCHES, AFT	3	38	19	1.6	55	80	do	do
	STEERING GEAR	1	128	37	2.1	28.2	132	do	do
	(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	7	1.3	2.88	60	do	Lead & steel wire net.
	do	45	9.3	7	1.3	17.4	80	do	do

The foregoing is a correct description.

Lev. Maurice Montigny

Electrical Engineers.

Date 11-11-26

COMPASSES.

Distance between electric generators or motors and standard compass... (Nereis telegraphy, rotary cipher) 12 m.

Distance between electric generators or motors and steering compass..... 4 6 9 m

The nearest cables to the compasses are as follows:—

The nearest cables to the compasses are as follows:—

A cable carrying	5	Amperes	7	^m feet from standard compass.	5	^m feet from steering compass.
------------------	---	---------	---	--	---	--

A cable carrying 13 Amperes 7^m feet from standard compass. 5^m feet from steering compass.

A cable carrying 40 Amperes 8 ^m~~feet~~ from standard compass 6 ^m~~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 1 degrees on 1 course in the case of the standard

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

Stabilimento Tecnico Triestino

for Barnes

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.

torless future.

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

DUAL CLASS

RR & RL

Total Capacity of Generators.....264 Kilowatts

The amount of Fee *Rs 6405.-*

Travelling Expenses (if any) £

Committee's Minute

Assigned

WED. 29 DEC 1928

66c Lf

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