

No. 9741

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

14 FEB 1927

Received at London Office

At turned off part, 3
or
Over threads 3
Pressure by Rules 9.32

Report 28/1/27 19 When handed in at Local Office 28/1/27 19 Port of GENOA

Manhole compensation: Survey held at GENOA Date, First Survey 6/10/26 Last Survey 12/1/27 19
(Number of Visits 13)

Material S.I. the Twin Screw Motor Vessel "TERESA ODERO" Tons { Gross 8189
Net 5054

Genoa, Tocco By whom built Cantieri Navali ODERO Yard No. 242 When built 1927
Cantieri Navali ODERO Port belonging to Genoa

Double riveted lay Genoa, Tocco By whom built Cantieri Navali ODERO Yard No. 242 When built 1927
Cantieri Navali ODERO Port belonging to Genoa

Plate 69 Rivets 66
Length of joint 17 m/m
No. of rivets 8.96 kg.
Light Installation fitted by Cantieri Navali ODERO Contract No. When fitted 1927

Manhole Diameter of rivet ring.
Distribution Two wire system
Supply for Lighting 110 volts, Heating Nil volts, Power 110 volts.

Alternating Current, Lighting Direct Power Direct
current system, state frequency of periods per second -

Can the superheaters be shut off from the boiler? Automatic Governors seen tested and found efficient when the whole load is suddenly thrown on or off Yes
do they comply with the requirements regarding rating Yes, are they compound wound Yes
compounded 5 per cent. Yes, if not compound wound state distance between each generator -

Hydro than one generator is fitted are they arranged to run in parallel No, is an adjustable regulating resistance fitted in
shunt field Yes

Are drain valves accessible, clearly marked, and furnished with sockets Yes, are they so spaced or shielded that they cannot be accidentally earthed,
or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

Generators Engine room lower platform.
Position in way of the generators satisfactory Yes, are they clear of all inflammable material Yes
near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators
anywhere near Yes, are the generators protected from mechanical injury and damage from water, steam or oil Yes

Direction of rotation fore and aft Yes
Are the bedplates and frames of the generating plant efficiently earthed Yes are the prime movers and
generators in metallic contact Yes

Switch Boards, where placed Engine room lower platform starboard side aft.
If the generators and main switchboard are not placed in the same compartment, is each generator provided with
insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard In same compartment

Are they placed in accessible positions, free from inflammable gases and acid fumes Yes
protected from mechanical injury and damage from water, steam or oil Yes, if situated near unprotected
other combustible material, state distance of same horizontally from or vertically above the switchboards -

Are they wholly of durable, non-ignitable non-absorbent materials Yes, is all insulation of high dielectric strength and of
high insulation resistance Yes, if semi-insulating material is used, are all conducting parts insulated from the slab
by mica or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yes

Are they effectively earthed Yes Are the fittings as per Rule regarding: - spacing or shielding of live parts
accessibility of all parts Yes, absence of fuses on back of board Yes, proportion of omnibus
fuses, individual fuses to voltmeter, pilot or earth lamp Yes, connections of switches Yes

Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches As required by
3 Sub-head A paragraphs C. (11) and d (11).

On main switchboard 17 ammeters 3 voltmeters - synchronising device for paralleling purposes.
Test lamps & trial

Circuit Breakers and Fusible Cut-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

Cables: Single, twin, concentric, or multi-core. Single are the cables insulated and protected as per Tables IV or V of the Rules. Yes
 Fall or Pressure, state maximum between bus bars and any point of the installation under maximum load. Under Rule allowances
 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. No paper insulated cable.

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, skylights 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. Clipped under decks, and armoured with braided steel covering. Run through steel tubes in exposed places.

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. Yes

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements. No such chambers.

Joints in Cables, state if any, and how made, insulated, and protected. No joints in main cables. A few small joints in lighting circuits soldered and properly insulated.

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. Bronze and ebonite.

Earthing Connections, state what earthing connections are fitted and their respective sectional areas. Motor frames in good direct metallic contact with hull. Switchboard frame also connected direct with hull structure.

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, 7 circuits.

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven. Not required, but supply may be obtained from any one of the three dynamos.

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. No

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. 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. No

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 None, 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. All except a few which could not be so arranged.

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. None so situated.

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. None required. Mast steel.

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. No such spaces.

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No of	Kilowatts.	RATED AT			DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
			Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	1	40	110	300	400	Compound steam engine	Boiler Fuel oil above 150 F.	
AUXILIARY	1	50	110	455	350	" Diesel 3 Cy.	Diesel Oil above 150 F.	
EMERGENCY	1	55	110	500	350	" " 4 "	" " " "	
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. Amps.	Approximate Length. (Lead and Return.) Metres.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
1st	MAIN GENERATOR	127	350	1	1.87	300	53	Tinned	Woven steel
	EQUALISER CONNECTIONS							Pure rubber	covering
2nd	AUXILIARY GENERATOR	127	470	1	2.17	350	21	White rubber	
3rd	EMERGENCY GENERATOR	127	470	1	2.17	350	16	Black "	" "
	ROTARY TRANSFORMER							Rubber tape	
	AUXILIARY SWITCHBOARDS	7	10	1	1.35	30	2	Lead tube	
	ENGINE ROOM	7	6	1	1.05	20	11	Jute	" "
	BOILER ROOM	7	6	1	1.05	10	15	Braided Steel	
	ACCOMMODATION	7	6	1	1.05	6	30	Wire	
		7	10	1	1.35	12	76		
		7	10	1	1.35	10	86		
		7	6	1	1.05	8	106		
	WIRELESS	7	6	1	1.05	8	130		
	SEARCHLIGHT	7	6	1	1.05	8	123		
	MASTHEAD LIGHT	1	1	1	1.1	1	60		
	SIDE LIGHTS	1	1	1	1.1	1	8		
	COMPASS LIGHTS	1	1	1	1.1	1/2	2		
	POOP LIGHTS	1	1	1	1.1	1	75		
	CARGO LIGHTS	7	6	1	1.05	12	50		
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amps.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	RELEASE COIL								
	MAIN BILGE LINE PUMPS	2	16	7	1.75	50	31	As above	As above
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP	1	45	37	1.24	85	31		
	CIRC. SEA WATER PUMPS	2	205	61	2.07	245	63		
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP	1	6	7	1.05	9	25		
	ENGINE ROOM SERVICE COIL								
	ENGINE ROOM SERVICE COIL								
	LUBRICATING OIL PUMPS	3	25	19	1.32	60	49		
	OIL FUEL TRANSFER PUMP	2	16	7	1.75	37	39		
	WINDLASS								
	WINCHES FORWARD								
	WINCHES AFT								
	STEERING GEAR								
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR	1	16	7	1.75	40	31		
	VENTILATING FANS								

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.

Luigi Vigilio Ciaroni

Electrical Engineers.

Date 3/2/27

COMPASSES.

Distance between electric generators or motors and standard compass 41 metres

Distance between electric generators or motors and steering compass 38 "

The nearest cables to the compasses are as follows:—

A cable carrying 8 Amperes 7 mts. ~~7~~ feet from standard compass 0.50 mt. ~~0.50~~ feet from steering compass.

A cable carrying 8 Amperes 7 " feet from standard compass 0.50 mt. ~~0.50~~ feet from steering compass.

A cable carrying 0.25 Amperes 1 " feet from standard compass 1 mt. ~~1~~ 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 Yes

The maximum deviation due to electric currents was found to be Nil degrees on Any course in the case of the standard

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

CANTIERI NAVALI ODERO

Luigi Vigilio Ciaroni

Builder's Signature.

Date 3/2/27

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 electrical installation has been fitted aboard in accordance with the requirements of the Rules. Materials and workmanship are good. In our opinion the vessel is eligible for the usual notation.

DUAL SURVEY
L.R. & R.I.

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

J.W.D.
14/2/27

Total Capacity of Generators 145 Kilowatts.

The amount of Fee ... Lit. 3800.-

When applied for,

4/2/27

When received,

30/4/27

Travelling Expenses (if any) £ 150.-

Alex. Lawrence & R. J. Mackintosh
Surveyors to Lloyd's Register of Shipping.

Committee's Minute TUES. 22 FEB 1927

Assigned

Elec. Light

1m. 128.—Transfer.
(The Surveyors are requested not to write on or back the space for Committee's Minute.)



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