

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 8th Feb 1926 When handed in at Local Office 19 Feb 1926 Port of Trieste Received at London Office 22 Feb 1926

No. in Survey held at Trieste Date, First Survey Sept 15, 1925 Last Survey February 3rd 1926
Reg. Book. 22812 on the MOTOR VESSEL "INDIA" (Number of Visits ten)

Built at Trieste By whom built Stabilimenti Tecnici Triestini Yard No. 744 Tons { Gross 6367 Net 4077
Owners Marittima Italiana Port belonging to Genoa When built 1926

Electric Light Installation fitted by Stabilimenti Tecnici Triestini Contract No. _____ When fitted 1926

System of Distribution Two wire direct current

Pressure of supply for Lighting 110 volts, Heating _____ 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 overload 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 and clearly marked Yes, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited Yes

Position of Generators Engine room platform - 2 on port side - 1 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 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 Board, where placed Port side 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, incombustible 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 connected to one pole insulated from the slab with mica or micranite 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

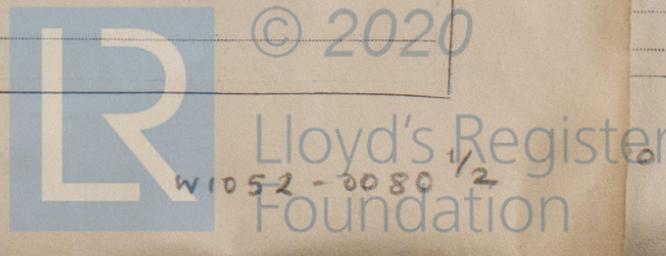
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Generators - double pole circuit breakers with maximum and minimum current trips and with equalizer switch electrically arranged as required by Rules. Outgoing circuits - two pole knife switches with quick release.

Instruments on main switchboard 4 ammeters 3 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 Earth lamps

Switches, 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



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 *4 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 *supported by iron clips, brass screws & protected by steel iron where necessary.*

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 VI *Yes*

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

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 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 *lead and wood.*

Earthing Connections, state what earthing connections are fitted and their respective sectional areas *Switchboard frame is of iron and in metallic contact with ship's structure.*

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*, 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 *No*

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 *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 axis 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 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	3	66	220	300	420	Two cylinder Diesel engines	Diesel oil	Above 150°F
AUXILIARY	✓							
EMERGENCY	✓							
ROTARY TRANSFORMER	1	13	220-110	118	1400			

LIGHTING AND HEATING CONDUCTORS.

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.				
	MAIN GENERATORS	1	321			300	60	Rubber	Armoured
	AUXILIARY GENERATOR	✓							
	EMERGENCY GENERATOR	✓							
	ROTARY TRANSFORMER	1	38			83	35	do	do
	AUXILIARY SWITCHBOARDS	✓							
	ENGINE ROOM & Tunnel	1	4.5			15.63	30	"	"
	BOILER ROOM	✓							
	Engineer's Cabin & Crew space	1	9.4			24.36	300	"	"
	Aft hatchway & upper deck	1	14			31.84			
	Forward hatchway & upper deck	1	14			37			
	Plug for station, oil fuel motor	1	25			50			
	Officer's station & bridge	1	14			18.71	400	"	"
	WIRELESS	1	6.7			15	70	"	"
	SEARCHLIGHT (look out for)	1	14			45	450	"	"
	MASTHEAD LIGHT	1	1.9			5	200	"	"
	SIDE LIGHTS	1	1.9			5	60	"	"
	COMPASS LIGHTS	1	1.9			25	60	"	"
	POOP LIGHTS	1	1.9			5	400	"	"
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.

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.				
	BALLAST PUMP	1	4.9			98	80	Rubber	Armoured
	MAIN BILGE LINE PUMPS	1	9.4			37	80	"	"
	GENERAL SERVICE PUMP	1	9.4			17.5	80	"	"
	EMERGENCY BILGE PUMP	✓							
	SANITARY PUMP	✓							
	CIRC. SEA WATER PUMPS	2	38			74	40	"	"
	CIRC. FRESH WATER PUMPS	✓							
	AIR COMPRESSOR	✓							
	FRESH WATER PUMP	1	2.4			7.9	20	"	"
	ENGINE TURNING GEAR	1	4.8			23.6	40	"	"
	ENGINE REVERSING GEAR	✓							
	LUBRICATING OIL PUMPS	2	9.4			37	50	"	"
	OIL FUEL TRANSFER PUMP	1	25			59	40	"	"
	WINDLASS	1	15.9			20.2	40	"	"
	WINCHES, FORWARD	4	15.9			200	90	"	"
	WINCHES, AFT	4	127	15.9		164	204	"	"
	STEERING GEAR	1	65			104	250	"	"
	WORKSHOP MOTOR	1	4.8			8	20	"	"
	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 Napoleone Montepetit Electrical Engineers. Date 16-2-26

COMPASSES.

Distance between electric ^{wireless} generators or motors and standard compass 7 m.
 Distance between electric ^{wireless} generators or motors and steering compass 9 m.
 The nearest cables to the compasses are as follows:—
 A cable carrying 7.34 Amperes 2.30 m. from standard compass 4.30 m. from steering compass.
 A cable carrying ✓ Amperes ✓ feet from standard compass ✓ feet from steering compass.
 A cable carrying ✓ Amperes ✓ feet from standard compass ✓ feet from steering compass.
 Have the compasses been adjusted with and without the electric installation at work at full power at full power only.
 Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted ho.
 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 *L. Spitz* Builder's Signature. Date 16-2-26

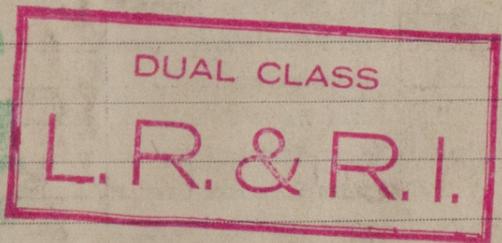
Is this installation a duplicate of a previous case No. If so, state name of vessel ✓

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, with satisfactory results.*)

wireless fitted.

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

AWD
25/2/26



Total Capacity of Generators 198 Kilowatts

The amount of Fee ... £14419. When applied for, Feb 19 1926
 Travelling Expenses (if any) £ ✓ : 27.4.1926
 When received, Feb 19 1926

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

Committee's Minute FRI, 26 FEB 1926

Assigned *Elec Light*

5c, 12, 23.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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