

Le Renier

S. S. Kambove

Form 13.

No. 15 222

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 30 AUG 1927

Date of writing Report 27<sup>th</sup> Aug. 1927 when handed in at Local Office 29/8 1927 Port of Antwerp.  
 No. in Survey held at Antwerp. Date, First Survey 1<sup>st</sup> April Last Survey 13<sup>th</sup> May 1927.  
 Reg. Book. 25917. on the S/S "KAMBOVE." (Number of Visits 4.)  
 Tons { Gross 5204  
 Net 3228.  
 Built at Glasgow. By whom built Harland & Wolff, Ltd. Yard No. ✓ When built 1918-11.  
 Owners Cie Africaine de Nav. S. A. Port belonging to Antwerp.  
 Electric Light Installation fitted by Electro-Usine et Industrielle Contract No. ✓ When fitted 17/5/27

System of Distribution Compound wound direct current

Pressure of supply for Lighting 100 V volts, Heating — volts, Power — volts.

Direct or Alternating Current, Lighting direct Power —

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 —, is an adjustable regulating resistance fitted in series with each shunt field —

Are all terminals accessible and clearly marked yes, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited yes Are the lubricating arrangements of the generators as per Rule yes

Position of Generators at engine room platform

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 Boards, where placed on lower part of watertight bulkhead at after end of engine room 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 30 x 4 7/8

individual fuses to voltmeter, pilot or earth lamp yes, connections of switches yes

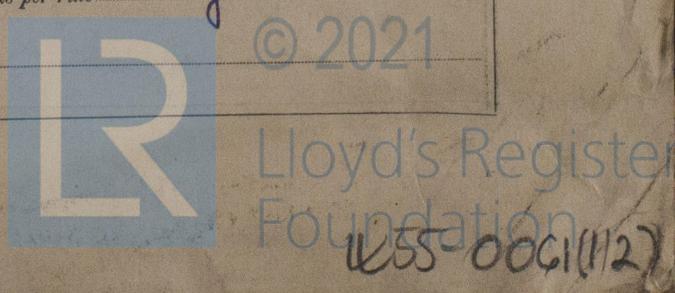
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches For generator double pole and fuse to each pole for each circuit

Instruments on main switchboard one ammeters one 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 two test earthing 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 single 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%

**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, uplakes 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 sheet plating with clips with brass screws and galvanized deck pipes

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 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 fibre

**Earthing Connections**, state what earthing connections are fitted and their respective sectional areas yes, 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 8 Engine Room 3 Boiler Room

**Emergency Supply**, state position and method of control of the emergency supply and how the generator is driven yes

**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 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 none

how are the cables led on main switch board

**Searchlight Lamps**, No. of none, whether fixed or portable none, are their fittings as per Rule none

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

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

**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 none

**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.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	1	10	100	100	350	Single cylinder steam driven engine		
AUXILIARY								
EMERGENCY								
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. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR		70 m <sup>2</sup>	19	2.17 m	70	8 m	rubber canvas	
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM		6	6	.036	5	6 m.	lead armoured	
	BOILER ROOM		2	3	.036	2	25 m.	"	
	Accommodation		10	7	.052	25	50 m.	"	
	WIRELESS		10 m <sup>2</sup>	7	.052	25	40 m.	rubber	Lead armoured
	SEARCHLIGHT		none						
	MASTHEAD LIGHT		1	2 m	3	.036	0.6	45 m.	"
	SIDE LIGHTS		1	2 m	3	.036	0.6	10 m.	lead
	COMPASS LIGHTS		1	2 m	3	.036	0.2	6 m.	"
	POOP LIGHTS		1	2 m	3	.036	0.6	50 m.	lead armoured
	CARGO LIGHTS		7	3x2 (2x4)	3-7	.036	14	"	"
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP								
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	WORKSHOP MOTOR								
	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.

L'ÉLECTRO INDUSTRIELLE  
*[Signature]*

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass *20 m approx*

Distance between electric generators or motors and steering compass *18 m*

The nearest cables to the compasses are as follows:—

A cable carrying *3* Ampères *20 m* feet from standard compass *5 m* feet from steering compass.

A cable carrying *0.3* Ampères *3 m* feet from standard compass *1 m* feet from steering compass.

A cable carrying *0.3* Ampères *1 m* feet from standard compass *3 m* feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power *to be adjusted at sea*

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.

Builder's Signature.

Date

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

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

*The workmanship & materials are good.  
 This electric installation has been completely overhauled, cables & wires renewed throughout the vessel, & when tried under working conditions was found satisfactory, & eligible in my opinion to remain as classed in the R. B.*

*It is submitted that  
 this vessel is eligible to  
 remain as CLASSED.*

*[Signature]*  
*6/9/27*

Total Capacity of Generators *10* Kilowatts

The amount of Fee *Francs 2088-*

When applied for,	<i>29-8-19 17</i>
When received,	19.....

 Travelling Expenses (if any) *41.80-*

*[Signature]*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned *as now*

50,1243.—Transfer.  
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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