

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

WED APR 18 1923

Date of writing Report 12. 4. 1923 When handed in at Local Office 14. 4. 1923 Port of Trieste

No. in Survey held at Trieste

Date, First Survey Feb 15

Last Survey Mar 6

1923

Reg. Book.

(Number of Visits.....)

3162209 on the S. S. Izgled

Tons { Gross 5032
Net 3245

Built at Newcastle

By whom built W. Dolson & Co

Yard No. -

When built 1911

Owners Navig. Libera G. Raich & Co.

Port belonging to Dubrovnik

Electric Light Installation fitted by Cantiere San Rocco S. A. Contract No.

When fitted 1923

System of Distribution Double wire

Pressure of supply for Lighting 110

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 one generator, is an adjustable regulating resistance fitted in series with each shunt field no

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 In C.R. bottom 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 Near Dinamo

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 - 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

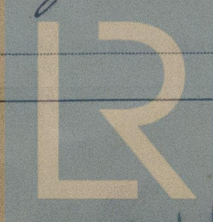
Double pole linked switches

Instruments on main switchboard 1 ammeters 1 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 Lamp on each pole

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



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Lloyd's Register Foundation

W386-0083

Insulation of Cables, state type of cables, single or twin *twinn* 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

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 *none*

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 *Armoured or lead covered supported by screw clips or in wood casing in the bulk space*
 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 *✓*

Joints in Cables, state if any, and how made, insulated, and protected *W.T. junction boxes*

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 *none* state the material of which the bushes are made *✓*

Earthing Connections, state what earthing connections are fitted and their respective sectional areas *✓*
 , 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 *✓*

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 *Armoured cables protected with wood planks in Bridge space in way of Masts.*
 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 *✓*, whether fixed or portable *✓*, are their fittings as per Rule *✓*

Arc Lamps, other than searchlight lamps, No. of *✓*, are their live parts insulated from the frame or case *✓*, are their fittings as per Rule *✓*

Motors, are their working parts readily accessible *✓*, are the coils self-contained and readily removable for replacement *✓*
 are the brushes, brush holders, terminals and lubricating arrangements as per Rule *✓*, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material *✓*
 are they protected from mechanical injury and damage from water, steam or oil *✓* are their axis of rotation fore and aft *✓*
 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 *✓*

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 *✓*

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 | | | Revs. per Min. | DRIVEN BY. | WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE. | | |
| | | Kilowatts. | Volts. | Ampères. | | | Fuel Used. | Flash Point of Fuel. | |
| MAIN ... | 1 | 16 | 110 | 150 | 500 | One single cylinder, double steam 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, Amperes. | Approximate Length, (Lead and Return,) Feet. | Insulated with | HOW PROTECTED. |
| | | | | No. | Diameter. | | | | |
| | MAIN GENERATOR... | 2 | 48.5 | 19 | 1.85 | 47 | 12 | Rubber | Armoured |
| | AUXILIARY GENERATOR ... | | | | | | | | |
| | EMERGENCY GENERATOR ... | | | | | | | | |
| | ROTARY TRANSFORMER... | | | | | | | | |
| | AUXILIARY SWITCHBOARDS ... | | | | | | | | |
| 1 | ENGINE ROOM ... | 2 | 4.5 | 7 | 0.85 | 11.8 | 200 | Rubber | Armoured |
| 2 | BOILER ROOM ... | 2 | 4.5 | 7 | 0.85 | 14 | 260 | " | Arm. & lead cov. |
| 3 | Officers & Saloon ... | 2 | 4.5 | 7 | 0.85 | 4.62 | 374 | " | " |
| 4 | Cargo Lights & Accom. ... | 2 | 4.5 | 7 | 0.85 | 3.15 | 300 | " | " |
| | Navigation ... | 2 | 4.5 | 7 | 0.85 | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 5 | WIRELESS ... | 2 | 4 | 7 | 0.85 | 13.7 | 300 | Rubber | Armoured |
| | SEARCHLIGHT ... | | | | | | | | |
| 4 | MASTHEAD LIGHT... | 2 | 1.5 | 1 | 1.35 | 0.35 | 800 | " | Arm. & lead cov. |
| 4 | SIDE LIGHTS ... | 2 | 1.5 | 1 | 1.35 | 0.35 | 350 | " | " |
| 4 | COMPASS LIGHTS ... | 2 | 1.5 | 1 | 1.35 | 0.47 | 420 | " | Lead covered |
| 4 | POOP LIGHTS ... | 2 | 1.5 | 1 | 1.35 | 0.35 | 900 | " | Arm. & lead cov. |
| 3 | CARGO LIGHTS ... | 2 | 2 | 1 | 1.5 | 1.1 | 390 | " | " |
| | ARC LAMPS ... | | | | | | | | |
| | HEATERS ... | | | | | | | | |
| MOTOR CONDUCTORS. | | | | | | | | | |
| Ref. No. | DESCRIPTION. | No. of Motors. | Effective Area of each Conductor, Sq. Ins. | COMPOSITION OF STRAND. | | Total Maximum Current, Amperes. | 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 ... | | | | | | | | |

The foregoing is a correct description.

Date 13-4-1923

COMPASSES.

Distance between electric generators or motors and steering compass..... 72'

The nearest cables to the compasses are as follows :—

A cable carrying 13.7 Amperes 20 feet from standard compass 15 feet from steering compass.

A cable carrying 3 Amperes 12 feet from standard compass 8 feet from steering compass.

A cable carrying 0.2 Amperes in the ~~foot from~~ standard compass in the ~~foot 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.....?

The maximum deviation due to electric currents was found to be 2 degrees on 2 course in the case of the standard compass, and degrees on course in the case of the steering compass.

Builder's Signature.

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. *This installation has been made in accordance with the Rule; the material and workmanship are good; it has been tested with the prescribed overload to the dynamo and found satisfactory.*

Total Capacity of Generators 16 Kilowatts

Actual load 5 Bw

The amount of Fee £ *five* 500/-

Travelling Expenses (if any) £ : :

Committee's Minute

Assigned

m, 9, 22. — Transfer.

Im, 9, 22. — Transfer.

When applied for,

4/4/1923

When received.

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Phuvarica
Surveyed to Lloyd's Register of Shipping.