

REPORT ON ELECTRIC FITTINGS.

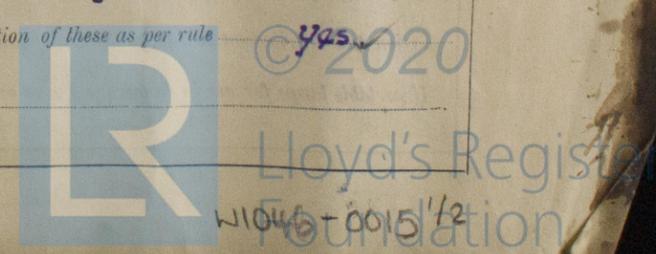
(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office JUL 25 1939

Date of writing Report 19 When handed in at Local Office 24.7.39 Port of Antwerp
 No. of Survey held at Hoboken Date, First Survey 9-1-39 Last Survey 13-7-1939
 Reg. Book. on the Twin. m/s. "Baudouinville."
 (Number of Visits 20)
 Tons { Gross
 Net
 Built at Hoboken By whom built Cockarill. Yard No. 675 When built 1939.
 Owners Compagnie Maritime Belge. Port belonging to Antwerp.
 Electric Light Installation fitted by l'Electro-Navale et Industrielle Contract No. 20.000 When fitted 1939.
 Is the Vessel fitted for carrying Petroleum in bulk no

System of Distribution Double insulated pole ✓
Pressure of supply for Lighting 220 ✓ 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. no ✓, 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 ✓ Are the lubricating arrangements of the generators as per Rule yes ✓
Position of Generators in engine room, two on port side and two on starboard. ✓
 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 in engine room, midship after. ✓
 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 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 insulated from the slab with mica or mica-nite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework _____, 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 accessible ✓, proportion of omnibus bars $2 \times [2 \times (100 \frac{mm}{m} \times 10 \frac{mm}{m})]$ 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 Three poles ✓
 with reversed current trips
 automatical cut out switches for generators and double pole automatical cut out switches for all outgoing circuits; double pole fuses for control circuits. ✓
Instruments on main switchboard 21 ammeters 5 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 one ohm meter, two earth fault indicating lamps. ✓
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 ✓

28/7/39



Single above 107m²
Twin below 107m²
Cables: Single, twin, concentric, or multicore *with 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 *as per rule*

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 *fixed with brass or galvanised clips on iron plates; wiring in accommodation and behind panelling is run in conduit.*
 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 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 *with clamped or tags in suitable 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 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 *lead*

Earthing Connections, state what earthing connections are fitted and their respective sectional areas *earthing connections are fitted for lead and for armouring wires: the sectional areas as per rules.* 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 *two diesel driven generators; emergency switch board with similar switch gear for outgoing circuits as main switchboard is mounted in engine room casing above main deck.*

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 *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 *yes with bronze guards.* are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *—*, 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 *—*, 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 *yes or vertical.* 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*, 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 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 *—* If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office *—*

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	4	400	220	1820	300	Sumner & Main Diesel Motors	Heavy oil	above 150° F
AUXILIARY								
EMERGENCY	2	50	220	227	1200	Sumner, Ricardo, trial motor	do	do
ROTARY TRANSFORMER								

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR									
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER									
ENGINE ROOM									
BOILER ROOM									
AUXILIARY SWITCHBOARDS									
ACCOMMODATION									
WIRELESS									
SEARCHLIGHT									
MASTHEAD LIGHT									
SIDE LIGHTS									
COMPASS LIGHTS									
POOP LIGHTS									
CARGO LIGHTS									
ARC LAMPS									
HEATERS									

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
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										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
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.

[Signature]
 SOCIÉTÉ ANONYME JOHN COCKERILL
 Division du Chantier Naval
 HOBOKEN-lez-Anvers
 Builder's Signature
 Electrical Engineer
 Date 29-6-39

COMPASSES.

Distance between electric generators or motors and standard compass ± 10 feet.
 Distance between electric generators or motors and steering compass ± 12 feet.
 The nearest cables to the compasses are as follows:—
 A cable carrying 12 Ampères ± 10 feet from standard compass ± 8 feet from steering compass.
 A cable carrying 10 Ampères ± 12 feet from standard compass ± 10 feet from steering compass.
 A cable carrying 6 Ampères ± 8 feet from standard compass ± 6 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 _____ degrees on _____ course in the case of the standard compass, and _____ degrees on _____ course in the case of the steering compass.

L'ELECTRO NAVALE & INDUSTRIELLE
 63, Rue de l'Empereur, 63 - ANVERS

[Signature]
 see compass adjusters Report.
 Electrical Engineer.
 Builder's Signature.
 Date 29-6-39

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 equipment of this vessel has been fitted on board under special survey, tested under full working conditions and found satisfactory. The material and workmanship are good and the installation merits in our opinion the Committee's approval.

Noted.
RR
51/7/39

Total Capacity of Generators 1700 Kilowatts.

The amount of Fee ... *£15312* : When applied for, 24-7-1939
 Travelling Expenses (if any) *£2324* : When received, 5-10-1939

V. L. Raboy
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 1 AUG 1939

Assigned *See I.E. mach. etc.*

1m.9.30.—Transfer.
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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