

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

9 JAN 1929

Received at London Office

Date of writing Report

19

When handed in at Local Office

8 JAN 1929

19

Port of

Newcastle-on-Tyne SUNDERLAND.

No. in Survey held at

Sunderland.

Date, First Survey

29th Oct.

Last Survey

29th Nov 1928.

Reg. Book. Supp.

91581 on the T. S. S. "Paquita"

(Number of Visits.....10.....)

Tons

Gross 2618

Net 1149

Built at

Sunderland.

By whom built

Sir J. Laing & Sons Ltd

Yard No.

704

When built

1928

Owners

Buracaoche Scheepw Matto.

Port belonging to

Willemstad

Electric Light Installation fitted by

Sunderland Dore & Long

Contract No.

704.

When fitted

1928.

System of Distribution

DOUBLE WIRE.

Pressure of supply for Lighting

110

volts, Heating

110

volts, Power

110

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.

YES

if not compound wound state distance between each generator

Where more than one generator is fitted are they arranged to run in parallel

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 MAIN ENGINE ROOM.

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

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 MAIN 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

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 micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework

YES.

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

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 SWITCH &

FUSES FOR GENERATOR AND EACH OUTGOING CIRCUIT.

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

EARTH LAMP. SWITCH

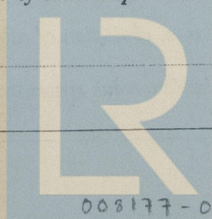
& FUSE ON EACH POLE.

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.



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Lloyd's Register
Foundation

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Cables: Single, twin, concentric, or multicore *SINGLE & TWIN* are the cables insulated and protected as per Tables IV or V of the Rules *JES*.

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *4-6 VOLTS*.

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 *JES*.

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 *—*.

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 *JES*.

Support and Protection of Cables, state how the cables are supported and protected *MAINS & MACHINERY SPACES: LEAD COVERED*.

ARMoured & BRAIDED CABLES SECURED WITH GALV IRON CLIPS. ACCOMM^N: *LEAD COVERED & BRAIDED SECURED WITH BRASS CLIPS*.

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 *JES*.

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 *NINE MADE*.

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands *JES*.

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed *JES* state the material of which the bushes are made *LEAD*.

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 *JES*.

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

Navigation Lamps, are these separately wired *JES*, controlled by separate switch and separate fuses *JES*, are the fuses double pole *JES*, are the switches and fuses grouped in a position accessible only to the officers on watch *JES*.

has each navigation lamp an automatic indicator as per Rule *JES*.

Secondary Batteries, are they constructed and fitted as per Rule *JES*.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight *JES*, 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 *—*.

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *SPECIAL CAST IRON*.

PUMP ROOM FITTINGS. *—*, how are the cables led *—*.

IN GALV SREWED IRON PIPE OUTSIDE PUMP ROOM.

where are the controlling switches situated *OUTSIDE PUMP ROOM*.

Searchlight Lamps, No. of *—*, whether fixed or portable *—*, are their fittings as per Rule *—*.

Are 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 *JES*, are the coils self-contained and readily removable for replacement *JES*.

are the brushes, brush holders, terminals and lubricating arrangements as per Rule *JES*, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material *JES*.

are they protected from mechanical injury and damage from water, steam or oil *JES*, are their axes of rotation fore and aft *JES*.

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 and fitted as per Rule *JES*.

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule *—*.

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 *JES*.

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office *JES*.

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT			DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amperes.		Fuel Used.	Flash Point of Fuel.
MAIN	1	8	110	72.7	380	SINGLE CYLINDER 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	.06000	19	.064	72.7	30	V.I.R.	LEAD COVERED ARMoured & BRAIDED.
EQUALISER CONNECTIONS	...	—	—	—	—	—	—	—	—
AUXILIARY GENERATOR	...	—	—	—	—	—	—	—	—
EMERGENCY GENERATOR	...	—	—	—	—	—	—	—	—
ROTARY TRANSFORMER	...	—	—	—	—	—	—	—	—
AUXILIARY SWITCHBOARDS	...	—	—	—	—	—	—	—	—
ENGINE ROOM	...	2	.00701	7	.036	10.2	30	V.I.R.	LEAD COVERED ARMoured & BRAIDED.
BOILER ROOM	...	2	.02214	7	.064	24.6	38.4	V.I.R.	LEAD COVERED ARMoured & BRAIDED.
ACCOMMODATION FORWARD	...	2	.01046	7	.044	7.2	460	V.I.R.	LEAD COVERED ARMoured & BRAIDED.
NAVIGATION	...	2	.02214	7	.064	24.6	38.4	V.I.R.	LEAD COVERED ARMoured & BRAIDED.
WIRELESS	...	2	.02214	7	.064	24.6	176	V.I.R.	LEAD COVERED ARMoured & BRAIDED.
SEARCHLIGHT	...	2	.00194	3	.029	5.4	336	V.I.R.	LEAD COVERED ARMoured & BRAIDED.
MASTHEAD LIGHT	...	2	.00194	3	.029	5.4	90	V.I.R.	LEAD COVERED & BRAIDED.
SIDE LIGHTS	...	2	.00194	3	.029	5.4	60	V.I.R.	LEAD COVERED & BRAIDED.
COMPASS LIGHTS	...	2	.00194	3	.029	5.4	80	V.I.R.	LEAD COVERED & BRAIDED.
POOP LIGHTS	...	2	.02214	7	.064	45.2	112	V.I.R.	LEAD COVERED & BRAIDED.
CARGO LIGHTS	...	2	.00194	3	.029	5.4	112	V.I.R.	LEAD COVERED & BRAIDED.
ARC LAMPS	...	2	.00299	3	.036	9.1	96	V.I.R.	LEAD COVERED & BRAIDED.
HEATER (GALLEY OIL)	...	2	.00299	3	.036	9.1	96	V.I.R.	LEAD COVERED & BRAIDED.

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	...	—	—	—	—	—	—	—	—
(a) MOTOR GENERATOR	...	—	—	—	—	—	—	—	—
(b) MAIN MOTOR	...	—	—	—	—	—	—	—	—
WORKSHOP MOTOR	...	—	—	—	—	—	—	—	—
VENTILATING FANS	...	—	—	—	—	—	—	—	—
GALLEY BLOWER MOTOR	...	2	.00194	3	.029	4.5	80	V.I.R.	LEAD COVERED & BRAIDED.

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.

per pro. THE SUNDERLAND FORGE & ENG. CO. LTD.

Electrical Engineers.

Date 21.12.28.

H. Haffner

COMPASSES.

Distance between electric generators or motors and standard compass 220 FEET.

Distance between electric generators or motors and steering compass 210 FEET.

The nearest cables to the compasses are as follows:—

A cable carrying 7.2 Ampères 20 feet from standard compass 12 feet from steering compass.

A cable carrying 1.8 Ampères 10 feet from standard compass 120 feet from steering compass.

A cable carrying 1.8 Ampères 120 feet from standard compass 10 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 *all* course in the case of the standard

compass, and *nil* degrees on *all* course in the case of the steering compass.

MR JAMES LAING & SONS, LIMITED,

James Laing
Director.

Builder's Signature.

Date 28th Dec. 1928.

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 above installation is in accordance with the Society's Rules. The vessel is eligible in my opinion for notation electric light wireless

Total Capacity of Generators 8 Kilowatts.

The amount of Fee ... £ 8 : : When applied for, 28 Nov. 19. 28

Travelling Expenses (if any) £ : : When received, 30 Nov. 19. 28 *New*

W. T. Badger
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Im. 228.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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