

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 4 Jan 38 When handed in at Local Office 6 Jan 38 Port of Philadelphia
 No. in Survey held at Chester, Pa Date, First Survey July 12 Last Survey Dec 21 1937
 Reg. Book. on the SS M.V. RHODE ISLAND (Number of Visits.....10)
 Tons { Gross 8562
 Net 5070
 Built at Chester, Pa By whom built Sum SB & DD Co Yard No. 165 When built 1937
 Owners The Texas Co Port belonging to Wilmington Del
 Electric Light Installation fitted by Sum SB & DD Co Contract No. 165 When fitted 1937
 Is the Vessel fitted for carrying Petroleum in bulk Yes

System of Distribution 2 Wire Direct current, ungrounded
 Pressure of supply for Lighting 110 volts, Heating _____ 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 Yes, is an adjustable regulating resistance fitted in series with each shunt field _____

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 Put side on engine room flat
 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 _____

Earthing, are the bedplates and frames of the generating plant efficiently earthed Yes are the prime movers and their respective generators in metallic contact _____

Main Switch Boards, where placed port side on engine room flat near generators in same compartment
 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 _____, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards Not near combustible material
 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 _____
 and is the frame effectively earthed _____

Are the fittings as per Rule regarding:— spacing or shielding of live parts _____, accessibility of all parts _____, absence of fuses on back of board _____, proportion of omnibus bars _____, individual fuses to voltmeter, pilot or earth lamp _____, connections of switches _____

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches 3 pole switches for line to generator, mid blade of switch is equalizer, single pole circuit breaker with overload & reverse current protection.

Instruments on main switchboard 2 ammeters 2 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 ground 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

Handwritten initials and date:
 11-2-38



Cables: Single, twin, concentric, or multicore *Single 9/16 in* are 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 *3 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 *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 *Cables are all varnish Cambie insulated*

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 on steel structure with cable straps & protected by strap iron where necessary*

If cables are run in wood casings, are the casings and caps secured by screws *None run thus* are the cap screws of brass 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 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 *Made in cast brass watertight junction boxes, soldered & taped*

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 *ground lamps only*

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 *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 *on tell tale panel in wheel house* has each navigation lamp an automatic indicator as per Rule *Yes*

Secondary Batteries, are they constructed and fitted as per Rule *None*

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 *vapour proof fittings* how are the cables led *lead & armoured cable used*

where are the controlling switches situated *outside of the space*

Searchlight Lamps, No. of *1*, whether fixed or portable *fixed*, are their fittings as per Rule *Yes*

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

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*, 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 *Not near combustible material*, 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 *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.

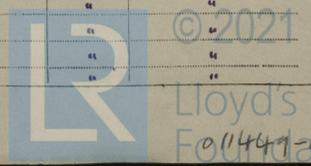
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	50	170	417	1800	Steam turbine		
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

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 Mils.	In Circuit.	Rule.			
MAIN GENERATOR	1	4715	61	99.2	400	460	30	Varnish Cambie	Leaded & armoured
EQUALISER CONNECTIONS	1	"	"	"	"	"	"	"	"
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR	1	0618	19	66.4	56	141	20	"	"
ENGINE ROOM									
BOILER ROOM									
AUXILIARY SWITCHBOARDS									
NAVIGATION LIGHTS	1	0082	7	38.5	2.2	38	500	"	"
FORECASTLE	1	"	"	"	15.6	"	700	"	"
FWD PUMP ROOM	1	"	"	"	9.6	"	600	"	"
AFT	1	"	"	"	9.6	"	400	"	"
MIDSHIP QUARTERS	1	0414	"	86.7	82.2	94	500	"	"
ACCOMMODATION									
AFTER QUARTERS UPPER DECK	1	0261	"	69.8	61.2	78	100	"	"
AFTER QUARTERS POOP DECK	1	0261	"	69.8	41.3	78	150	"	"
WIRELESS	1	0130	"	48.6	35.0	51	450	"	"
SEARCHLIGHT	1	0082	"	38.5	10.0	38	800	"	"
MASTHEAD LIGHT	1	0032	"	24.2	"	11.6	300	"	"
SIDE LIGHTS	1	"	"	"	.5	"	100	"	"
COMPASS LIGHTS	1	"	"	"	.5	"	20	"	"
POOP LIGHTS									
CARGO LIGHTS									
ARC LAMPS									
HEATERS									

MOTOR CONDUCTORS.

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.			
CONDENSER CONDENSATE PUMP	1	1	0206	7	61.2	42.2	68	100	Varnish Cambie	Leaded & armoured
BOILER CIRC. #1	1	1	0082	7	38.5	17.2	38	80	"	"
MAIN MOTOR ROOM PUMPS	1	1	0082	7	38.5	17.2	38	150	"	"
BOILER CIRC #2	1	1	0082	7	38.5	17.2	38	150	"	"
GENERAL SERVICE PUMP	1	1	0082	7	38.5	17.2	38	150	"	"
EMERGENCY BILGE PUMP	1	1	0206	7	61.2	42.2	68	80	"	"
SANITARY PUMP	1	1	0206	7	61.2	42.2	68	80	"	"
CIRC. SEA WATER PUMPS										
CIRC. FRESH WATER PUMPS										
AIR COMPRESSOR										
FRESH WATER PUMP	1	1	0082	7	38.5	25	38	60	"	"
ENGINE TURNING GEAR	1	1	1318	19	94.0	224	226	70	"	"
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS										
OIL FUEL TRANSFER PUMP										
WINDLASS										
WINCHES, FORWARD										
PUMP ROOM BLOWER FWD	1	1	0082	7	38.5	13.2	38	210	"	"
WINCHES, AFT										
PUMP ROOM BLOWER MID	1	1	0082	7	38.5	13.2	38	200	"	"
STEERING GEAR										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
WORKSHOP MOTOR	3	1	0130	7	48.6	43.6	51	100	"	"
VENTILATING FANS	4	1	0032	7	24.2	7.0	11.6	"	"	"
FUEL OIL STARTING	1	1	0082	7	38.5	17.2	38	"	"	"
FORCED DRAFT #1	1	1	0618	19	66.4	78.0	141	"	"	"
" #2	1	1	0618	19	66.4	78.0	141	150	"	"
LUB. OIL PURIFIER #1	1	1	0206	7	61.2	42.2	68	"	"	"
" #2	1	1	"	7	"	"	"	"	"	"
FUEL OIL PURIFIER #1	1	1	"	7	"	"	"	"	"	"
" #2	1	1	"	7	"	"	"	"	"	"



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 of the work done.

SUN SHIPBUILDING & DRY DOCK CO.

Robert A. Aig

Electrical Engineers.

Date 5 Jan 1938

COMPASSES.

Distance between electric generators or motors and standard compass 300 ft
 Distance between electric generators or motors and steering compass 290 ft
 The nearest cables to the compasses are as follows:—
 A cable carrying 1/2 Ampères 5 feet from standard compass 4 feet from steering compass.
 A cable carrying 10 Ampères 15 feet from standard compass 10 feet from steering compass.
 A cable carrying Ampères feet from standard compass 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.

SUN SHIPBUILDING & DRY DOCK CO.

Robert A. Aig

Builder's Signature.

Date 5 Jan 1938

Is this installation a duplicate of a previous case *Yes* If so, state name of vessel LOUISIANA *7314 Phil 1938*

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

All precautions have been taken to make this installation as safe as possible. The electric cables are all varnish Cambric insulated, leaded & woven bronze armoured. The cables are all well protected against mechanical injury. All fittings & fixtures are of brass. The installation has been satisfactorily installed on board the vessel, tried out under full power with satisfactory results.

Noted
Red
 11-2-38

Total Capacity of Generators 100 Kilowatts.

The amount of Fee \$ 162.00 : When applied for, 7th Jan 1938
 Travelling Expenses (if any) \$ 5.00 : When received, 14.11.38

W.D. Pankham
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

NEW YORK JAN 26 1938

Assigned Elec. light

1m, 9, 30.—Transfer. (The Surveyors are requested to write on or below the space for Committee's Minute.)



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