

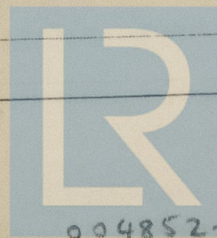
REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

FEB 17 1941

Date of writing Report 5 Dec 40 When handed in at Local Office 18 Dec 40 Port of Philadelphia
 No. in Survey held at Chester Pa Date, First Survey 6 Aug Last Survey 10 Nov 1940
 Reg. Book. on the MV. AMERICA SUN. Tons { Gross
 Net
 Built at Chester Pa By whom built Em 839 D D Co Yard No. 196 When built 1940
 Owners Em Gil Co Port belonging to Philadelphia
 Electric Light Installation fitted by Em 839 D D Co Contract No. 196 When fitted 1940

System of Distribution Two wire mains Two wire branches
 Pressure of supply for Lighting 110 volts volts, Heating — volts, Power 230 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
 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 Engine Room Machinery flat stb side
 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 Yes
 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 Engine room Machinery flat stb side
 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 Same flat
 Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes Yes, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards Yes 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 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
 Main generator 2 - 1600 Amp 3 pole non-fused line switch
2 - 1600 Amp 2 pole Reverse current & overload trip
 Aux generator 1 - 400 Amp 2 pole non-fused line switch
1 - 400 Amp 2 pole Reverse current & overload trip
 Instruments on main switchboard 3 ammeters 3 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



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004852-004860-013/13

Cables: Single, twin, concentric, or multicore Yes 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 5%

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 None used.

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 Cables laid in Channel along fore & aft walkway. elsewhere on cable racks.

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 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 Continuous lengths

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 all cables are armoured. cables pass through beams and non-watertight partitions, are the holes efficiently bushed Yes state the material of which the bushes are made Cast lead

Earthing Connections, state what earthing connections are fitted and their respective sectional areas None

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 Yes

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 None

how are the cables led None

where are the controlling switches situated None

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 Yes

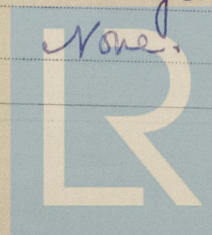
if not of this type, state distance of the combustible material horizontally or vertically above the motors Yes and Yes

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 None



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POOF LIGHTS

AKU LAMPS

HEATERS

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. am ère.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BRISTLE PUMP LATHE	1	0032	1	.064	8.6 ✓	30	Varnished Cambric	10 A fuse
	DRILL PRESS	1	0032	1	.064	4.6 ✓	20	"	10 A "
	MAIN BIDGE LINE PUMPS	1	007	7	.036	12.6 ✓	40	"	15 A "
	GRINDER	1	0032	1	.064	2 ✓	40	"	10 A "
	GENERAL SERVICE PUMP	1	0032	1	.064	2 ✓	40	"	15 A "
	BENCH LATHE	1	007	7	.036	12.6 ✓	40	"	10 A "
	EMERGENCY BIDGE PUMP	1	007	7	.036	3.5 ✓	40	"	40 A "
	SHAPER	1	0032	1	.064	10. ✓	80	"	10 A "
	SANITARY PUMP	1	0032	1	.064	8 ✓	80	"	20 A "
	VENT. BLOWER	1	0032	1	.064	18.2 ✓	40	"	10 A "
	CIRC. SEA WATER PUMPS	6	0284	19	.044	22.7 ✓	40	"	70 A "
	MAC. SHOP. POWER PANEL	6	0284	19	.044	22.7 ✓	40	"	70 A "
	CIRC. FRESH WATER PUMPS	6	0284	19	.044	22.7 ✓	40	"	10 A "
	COFFEE. URN.	1	0032	1	.064	8 ✓	80	"	25 A "
	AIR COMPRESSOR	1	0032	1	.064	8 ✓	80	"	25 A "
	COFFEE URN	1	0032	1	.064	8 ✓	80	"	70 A "
	FRESH WATER PUMP	1	007	7	.036	18.2 ✓	40	"	10 A "
	GRIDDLE	1	007	7	.036	8 ✓	60	"	10 A "
	ENGINE TURNING GEAR	1	0032	1	.064	8 ✓	80	"	25 A "
	COFFEE. URN	1	0032	1	.064	8 ✓	80	"	25 A "
	ENGINE REVERSING GEAR	1	0032	1	.064	8 ✓	80	"	70 A "
	WATER HEATER	1	0032	1	.064	8 ✓	80	"	70 A "
	LUBRICATING OIL PUMPS	1	0146	7	.052	22.7 ✓	40	"	10 A "
	STEAM KETTLE	1	0146	7	.052	22.7 ✓	40	"	10 A "
	OIL FUEL TRANSFER PUMP	1	0146	7	.052	22.7 ✓	40	"	10 A "
	BAKE OVEN	1	0396	19	.052	65.0 ✓	50	"	10 A "
	WINDLASS	1	0396	19	.052	65.0 ✓	50	"	10 A "
	RANGE NO 1	1	0396	19	.052	65.0 ✓	50	"	10 A "
	WINCHES FORWARD	1	0396	19	.052	65.0 ✓	50	"	10 A "
	RANGE NO 2	1	0032	1	.064	3.5 ✓	40	"	10 A "
	WINCHES AFT	1	0032	1	.064	2.0 ✓	60	"	200 A "
	DISH WASHER	1	0032	1	.064	2.0 ✓	60	"	
	STEERING GEAR	1	0032	1	.064	2.0 ✓	60	"	
	BLOWERS	2	0032	1	.064	2.0 ✓	60	"	
	(a) MOTOR GENERATOR	3	1964	37	.064	233.0 ✓	160	"	
	(b) MAIN MOTOR	3	1964	37	.064	233.0 ✓	160	"	
	WORKSHOP MOTOR								
	VENTILATING FANS								

Lead covered & grounded.



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PARTICULARS OF GENERATING PLANT.

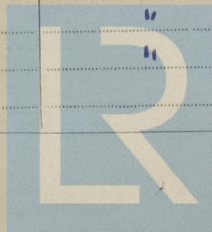
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	2	750 each	240	1250		Steam Turbine	Bunker C	240 lbs.
AUXILIARY ...	1	75.	240	312		Diesel Engine		
EMERGENCY ...								
ROTARY TRANSFORMER	2	25 each	120	208	1750	Electric motor		

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	2.0	254	.103	1250 ✓	60	Varnish & Cambric	1600 A Cir Break
	EQUALISER CONNECTIONS	1	1.0	127	.103	625 ✓	60	"	
	AUXILIARY GENERATOR	1	.40	61	.903	312 ✓	80	"	375 A Cir Break
	EMERGENCY GENERATOR	1	.150	37	.072	147 ✓	80	"	175 A Fuse
	ROTARY TRANSFORMER...	1	.250	37	.093	208 ✓	80	"	275 A Cir Break
	AUXILIARY SWITCHBOARDS	1	.060	19	.064	80 ✓	60	"	100 A Fuse
	ENGINE ROOM LIGHTING	1	.040	19	.012	70 ✓	180	"	60 A "
	BOILER ROOM	1	.040	19	.012	86 ✓	100	"	60 A "
	UPPER DECK	1	.075	19	.072	100 ✓	550	"	20 A "
	ACCOMMODATION MID SHIPS.	1	.010	7	.044	315 ✓	550	"	20 A "
	NAVIGATION	1	.022	7	.064	10 ✓	550	"	20 A "
	FATHOMETER.	1	.0145	7	.052	6 ✓	550	"	20 A "
	GYRO COMPASS.	1	.0225	7	.064	40 ✓	550	"	40 A Fuse
	WIRELESS	1	.0225	7	.064	40 ✓	550	"	40 A Fuse
	SEARCHLIGHT								
	MASTHEAD LIGHT...								
	SIDE LIGHTS...								
	COMPASS LIGHTS...								
	POOP LIGHTS								
	CARGO LIGHTS								
	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.				
	GENERAL SERVICE	1	.0221	7	.064	32 ✓	60	Varnish & Cambric	40 A Fuse
	BALLAST PUMP	1	"	7	.064	20 ✓	200	"	" "
	REFRIGERATOR	1	"	7	.064	2.4 ✓	180	"	10 A "
	MAIN BILGE PUMP	1	.0032	1	.064	2.4 ✓	180	"	" "
	REFRIG COND. CIRC.	1	"	1	.064	2.4 ✓	180	"	40 A "
	GENERAL SERVICE PUMP	1	"	1	.064	2.4 ✓	180	"	375 A Cir br.
	WASH WATER.	1	"	1	.064	2.4 ✓	180	"	200 A Fuses
	EMERGENCY BILGE PUMP	1	.01462	7	.082	20 ✓	160	"	275 A Cir br.
	SANITARY PUMP	2	.064	61	.093	184 ✓	160	"	10 A Fuses
	CIRC. SEA WATER PUMPS	2	.1964	37	.083	275 ✓	140	"	125 A "
	CIRC. FRESH WATER PUMPS	3	.246	37	.093	275 ✓	140	"	90 A "
	AIR COMPRESSORS.	1	.0032	1	.064	2.4 ✓	100	"	30 A "
	FRESH WATER PUMP	1	.100	19	.083	112 ✓	180	"	" "
	ENGINE TURNING GEAR	1	.0759	19	.072	76 ✓	160	"	20 A "
	FORCED DRAFT	1	.0145	7	.082	20 ✓	130	"	" "
	SHIP SERVICE AIR COMP	2	"	7	.082	20 ✓	100	"	20 A "
	LUBRICATING OIL PUMPS	2	"	7	.082	20 ✓	100	"	70 A "
	OIL FUEL TRANSFER PUMP	2	.0104	7	.044	12.6 ✓	86	"	60 A "
	CONDENSATE	1	.060	19	.064	18 ✓	130	"	30 A "
	STAND. BY AIR COMPRESSOR	4	.02214	7	.064	39 ✓	160	"	" "
	WINCHES, FORWARD	1	.0145	7	.012	20 ✓	190	"	400 A Cir br.
	DOILER BURNER BLOWER.	2	.3025	37	.103	184 ✓	180	"	30 A Fuses
	STEERING GEAR	2	.0145	7	.082	20 ✓	100	"	25 A "
	(a) MOTOR GENERATOR...	2	.0146	7	.082	8.6 ✓	150	"	30 A "
	(b) MAIN MOTOR	2	.0145	7	.082	20 ✓	160	"	10 A "
	Lub. oil separator	1	.007	7	.036	3.5 ✓	80	"	20 A "
	Workshop Motor	1	.0104	7	.044	8.6 ✓	80	"	30 A "
	VENTILATING FANS	1	.0146	7	.012	20 ✓	150	"	200 A "
	FUEL OIL SEPARATOR	2	.1478	37	.072	184 ✓	180	"	125 A "
	Atmospheric main pump	1	.100	19	.083	94 ✓	100	"	250 A Cir br.
	Starve F.O. Starling	1	.1964	37	.083	280 ✓	200	"	
	Engine room Crane								
	Capstan								
	Blue gas blower								
	Shore line								



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.

T. M. Jackson

Electrical Engineers.

Date 12/2/40

Sun Shipbuilding & Dry Dock Co.

COMPASSES.

Distance between electric generators or motors and standard compass

30 ft

Distance between electric generators or motors and steering compass

30 ft

The nearest cables to the compasses are as follows:—

A cable carrying .09 Amperes m feet from standard compass m feet from steering compass.

A cable carrying .9 Amperes 6 feet from standard compass 6 feet from steering compass.

A cable carrying 1.3 Amperes 6 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 variation due to electric currents was found to be 0 degrees on NW course in the case of the standard compass, and 0 degrees on NW course in the case of the steering compass.

Sun Shipbuilding & D. D. Co. Builder's Signature. T. M. Jackson S. S.

Date 12/2/40

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 electric lighting installation has been satisfactorily installed on board the vessel, all in accordance with the approved plans. The workmanship & materials are good. The installation has been tried out under full power and found satisfactory.

Plans to be forwarded with sister vessel.

Noted

24/2/41

Total Capacity of Generators 675 Kilowatts.

The amount of Fee ...

\$ 247.00

Travelling Expenses (if any) £

\$ 4.00

When applied for,

4 Jan 1941

When received,

19

W. M. Cumham

Surveyor to Lloyd's Register of Shipping.

NEW YORK JAN 8 - 1941

Committee's Minute

Assigned

Elec. light



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