

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 5 SEP 1926

Date of writing Report 19 When handed in at Local Office Sept 14th 1926 Port of HULL

No. in Survey held at Hull Date, First Survey Aug. 18th Last Survey Sept 10th 1926
 Reg. Book. (Number of Visits Five)

on the STEEL S.S. "SHERINGHAM" Tons { Gross 1088
 Net 429

Built at Hull By whom built Charles S.B. & Co. Ld Yard No. 469 When built 1926

Owners London & North Eastern Ry. Co. Port belonging to Harwich

Electric Light Installation fitted by Charles S.B. & Co. Ld. Contract No. When fitted 1926

System of Distribution Two wire system.

Pressure of supply for Lighting 110 volts, Heating _____ volts, Power 110 volts.

Direct or Alternating Current, Lighting Direct current Power Direct current

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 _____, is an adjustable regulating resistance fitted in series with each shunt field _____

Are all terminals accessible and clearly marked Yes, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited _____

Position of Generators Starboard side of engine room, fore and aft.
 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, Direct coupled.

Main Switch Boards, where placed On engine room bulkhead, near generator.
 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 8" vertically protected by steel tray & asbestos.
 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

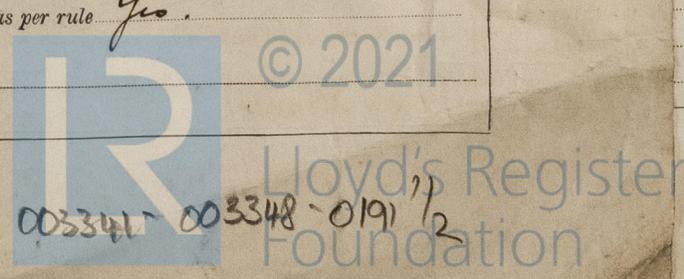
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches
Double pole switches for generator, & each outgoing circuit protected by DB. Switch & SP. fuse.

Instruments on main switchboard one ammeters one voltmeters _____ Synchronising device for paralleling purposes. both lamps

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system _____

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



Insulation of Cables, state type of cables, single or twin Both 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 1%

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 Clips spaced as per Rule.

L.C. armoured & leaded cables in ER, holds, etc. and L.C. cables in accommodation

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 VI Yes

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements None

Joints in Cables, state if any, and how made, insulated, and protected None

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 Yes state the material of which the bushes are made Lead.

Earthing Connections, state what earthing connections are fitted and their respective sectional areas From switchboard to frame, 0.055 sq. inch.

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, 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 Lead fittings only

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 None, whether fixed or portable , are their fittings as per Rule

Arc Lamps, other than searchlight lamps, No. of None, 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

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 ✓ and ✓

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed 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.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	One	23	110	209	460	Steam engine	✓	✓
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

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	1	25	34	0.093	209	45	V.I.R.	Lead.
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	1	0.031	3	0.036	9.5		V.I.R.	L.C. Armoured & leaded
	BOILER ROOM								
	Ship accommodation	1	0.004	7	0.036	11.5	160	"	" " " "
	Aft	1	0.002	3	0.029	5.5	200	"	" " " "
	Cargo deck	1	0.007	4	0.036	17.8	40	"	" " " "
	Hold transverse	1	0.01	4	0.044	26.5	40	"	" " " "
	WIRELESS								
	SEARCHLIGHT								
	MASTHEAD LIGHT	1	0.02	3	0.029	1	300	"	" " " "
	SIDE LIGHTS	2	0.02	3	0.029	1 each	60	"	" " " "
	COMPASS LIGHTS	2	0.02	3	0.029	1 "	20	"	" " " "
	POOP LIGHTS								
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS								

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	1	0.004	4	0.036	20	350	V.I.R.	L.C. A + B.
	protected by S/S	1	0.004	4	0.036	20	45	V.I.R.	" " "

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.

Earle's Shipbuilding & Engineering Co. Ltd., Electrical Engineers. Date 13th Sept. 1926.

COMPASSES.

Distance between electric generators or motors and standard compass 84 feet
 Distance between electric generators or motors and steering compass 80 "

The nearest cables to the compasses are as follows:—
 A cable carrying 7 Ampères 12 feet from standard compass 7 feet from steering compass.
 A cable carrying Ampères feet from standard compass 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 0 degrees on any course in the case of the standard compass, and 0 degrees on any course in the case of the steering compass.

FOR EARLE'S SHIPBUILDING & ENGINEERING CO. LIMITED.

G. H. Stafford Builder's Signature. Date 13th Sept. 1926.

Is this installation a duplicate of a previous case? If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The electrical installation) of this vessel has been fitted on board under special survey. The materials + workmanship are sound + good. The installation has been tried under working conditions and found in order. It is eligible in my opinion to have record of 'Electric Light' in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. Elec. light.

JWD
 14/9/26

Total Capacity of Generators 23 Kilowatts

The amount of Fee ... £ 19 : ✓ : { When applied for, 12.9.26
 Travelling Expenses (if any) £ ✓ : : { When received, 25.10.26

Surveyor to Lloyd's Register of Shipping.

FRI. 17 SEP 1926

Committee's Minute Assigned Elec. light

56,12,26—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

