

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 3 - MAR 1947

Date of writing Report February 15, 1947 When handed in at Local Office 19 Port of Saint John, N. B.

No. in Survey held at Saint John, N. B. Date, First Survey May 14/46 Last Survey Jan. 29 19 47
Reg. Book. (Number of Visits Continuous attendance.

on the single screw motor vessel "MARY SWEENEY" Tons { Gross 518
Net 233

Built at Saint John, N. B. By whom built & Shipbldg. Co. Ltd. Yard No. 23 When built 1947

Owners W. Lawrence Sweeney, Esq. Port belonging to Saint John, N. B.

Electric Light Installation fitted by St. John Drydock & S.B. Co. Ltd. Contract No. - When fitted 1947

Is the Vessel fitted for carrying Petroleum in bulk No

System of Distribution Two wire insulated constant pressure

Pressure of supply for Lighting 110 volts, Heating - volts, Power 110 volts,

Direct or Alternating Current, Lighting - Power -

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 temperature rise 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 One generator only, is an adjustable regulating resistance fitted in

series with each shunt field Yes Have certificates of test results for machines under 100 kw. been submitted and

approved Yes Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing Under 100 kw.

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 Generator Lower engine room, starboard 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 - 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 Lower engine room, starboard 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 in same compartment

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

is it of an approved type - 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 - is the non-hygroscopic insulating material of an approved

type - 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, temperature rise of

omnibus bars Yes, individual fuses to voltmeter, pilot or earth lamp Yes, are moving parts of switches alive in the

"off" position No are all screws and nuts securing connections effectively locked Yes are any fuses fitted on the live side of

switches No Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

150 amps. D.P. linked circuit breaker with overload trip; no equalizer switches;

Outgoing Circuits D.P.S.T. switches and fuses.

Are turbine driven generators fitted with emergency trip switch as per rule - Are cupboards or compartments containing switchboards composed of

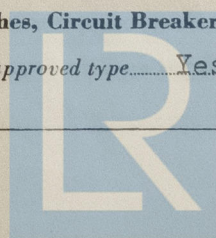
fire-resisting material or lined with approved material - Instruments on main switchboard One ammeters One volt-

meters None synchronizing device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equalizer connection

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

Earth lamps; also positive & negative voltage test to earth through selector switch. Switches, Circuit Breakers and Fusible Cut-outs,

do these comply with the requirements of the Rules Yes are the fusible cutouts of an approved type Yes have the reversed



current protection devices been tested under working conditions..... **Joint Boxes, Section and Distribution Boards**, is the construction, protection, insulation, material, and position of these as per rule **Yes**

Cables: Single, twin, concentric, or multicore. **Single** are the cables insulated and protected as per Tables IV, V, X or XI of the Rules. **Yes**

If the cables are insulated otherwise than as per Rule, are they of an approved type **Yes** **Fall of Pressure**, state maximum between bus bars and any point of the installation under maximum load **Negligible** **Cable Sockets**, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets **Yes** **Paper Insulated and Varnished Cambric Insulated Cables.**

If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound..... or waterproof insulating tape..... **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** Are cables in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit **In conduit**

Support and Protection of Cables, state how the cables are supported and protected **Perforated steel trays**

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, are the cables and fittings in accordance with the special requirements **No fittings**

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 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 **Lead covered cables conduit and metal trays effectively earthed.**

....., are their connections made as per Rule

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.....

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.....

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 **No**

....., how are the cables led

where are the controlling switches situated.....

are all fittings suitably ventilated **Yes**..... are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials **Yes**

Heating and Cooking Appliances, are they constructed and fitted as per Rule **None**..... are air heaters constructed and fitted as per Rule **None**

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**..... are their axes of rotation fore and aft **Some**..... 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..... and..... if not of this type, state distance of the combustible material horizontally or vertically above the motors.....

Under 100 **Control Gear and Resistances**, are the generator have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing **BHP**.....

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..... are all fuses of the filled cartridge type..... are they of an approved type.....

If portable lamps for use in dangerous spaces are supplied, are they of a self-contained, battery-fed type approved by the Home Office.....

Spare Gear, if the vessel is for open sea service have spares been supplied as per Rule **Yes**

PARTICULARS OF GENERATING PLANT.										
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.			
		Kilowatts.	Volts.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.		
MAIN	One	15	110	136	575	Steam Reciprocating	—	—		
AUXILIARY						Engine				
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 Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rule.				
MAIN GENERATOR	One	0.1661	19	0.1055	136	162	20	Rubber	In conduit	
EQUALISER CONNECTIONS										
AUXILIARY GENERATOR										
EMERGENCY GENERATOR										
ROTARY TRANSFORMER (MOTOR										
ENGINE ROOM and										
BOILER ROOM L.P. 1	One	0.0081	7	0.0385	11.3	26	30	Rubber	In conduit	
AUXILIARY SWITCHBOARDS										
Ventilating Fans P.D.P. 1	One	0.0206	7	0.0612	27.8	43	40	"	"	
Pump Motor Panel) P.D.P. 2	One	0.0081	7	0.0385	21.9	26	30	"	"	
Navigation	One	0.0032	7	0.0242	2.7	10	60	"	"	
ACCOMMODATION L.P. 2	One	0.013	7	0.0486	26.4	35	65	"	"	
WIRELESS										
SEARCHLIGHT										
MASTHEAD LIGHT	One	0.0032	7	0.0242	0.36	10	80	"	"	
SIDE LIGHTS	One	0.0032	7	0.0242	0.36	10	40	"	"	
Wheelhouse and COMPASS LIGHTS	One	0.0032	7	0.0242	2.5	10	80	"	"	
POOP LIGHTS										
CARGO LIGHTS	One	0.013	7	0.0486	25.9	35	45	"	"	
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 Nominal 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										
Oil Separator Stand-by	One	One	0.0051	7	0.0305	6.5	17	50	Rubber	In conduit
LUBRICATING OIL PUMPS	One	One	0.0051	7	0.0305	11.0	17	50	"	"
Diesel OIL FUEL TRANSFER PUMP	One	One	0.0051	7	0.0305	4.4	17	46	"	"
Refrigerator	One	One	0.0051	7	0.0305	6.2	17	120	"	"
WATER PUMPS										
Boiler F.D. Fan	One	One	0.0051	7	0.0305	11.7	17	60	"	"
WATER PUMPS										
Galley Blower	One	One	0.0032	7	0.0242	2.3	10	46	"	"
STEERING GEAR—										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
WORKSHOP MOTOR										
VENTILATING FANS										
E.R. Supply Port	One	One	0.0051	7	0.0305	6.2	17	30	"	"
E.R. Supply Stbd.	One	One	0.0051	7	0.0305	6.2	17	30	"	"
E.R. Exhaust	One	One	0.0051	7	0.0305	6.2	17	30	"	"
Accom. Supply Port	One	One	0.0051	7	0.0305	4.6	17	40	"	"
Accom. Supply Stbd.	One	One	0.0051	7	0.0305	4.6	17	40	"	"

All Conductors are of annealed copper conforming to British Standard Specification No. 7 (or International Electro-technical Commission Publication No. 28).

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

For St. John Dry Dock & Shipbuilding Co. Ltd.

Electrical Engineers.

Date 27 Feb 1947

General Superintendent

COMPASSES.

Distance between electric generators or motors and standard compass 14 ft.

Distance between electric generators or motors and steering compass 10 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 4 Ampères 7 feet from standard compass 5 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 Nil degrees on All courses in the case of the standard

compass, and Nil degrees on all courses in the case of the steering compass.

For St. John Dry Dock & Shipbuilding Co. Ltd.

Builder's Signature.

Date 27 Feb 1947

Is this installation a duplicate of a previous case Yes If so, state name of vessel "Patricia Sweeney"

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

The electrical equipment of this vessel has been fitted in accordance with the Society's Rules and Regulations and approved plans; the materials and workmanship used throughout are good. The installation has been tested under full working conditions and found satisfactory.

Total Capacity of Generators 15 Kilowatts.

The amount of Fee ... \$75.00

When applied for,

26.25 19.47

When received.

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Traveling Expenses (if any) Included in Eng. Report

Committee's Minute FRI. 9 APR 1948

Assigned To units see J.E. Mech. Rpt.

W. H. Hearn
Surveyor to Lloyd's Register of Shipping.