

REPORT ON ELECTRIC ~~LIGHTING~~ INSTALLATION. No. 21684

Port of New York Date of First Survey Aug 21/21 Date of Last Survey May 25/22 No. of Visits 22
 No. in Reg. Book 88 on the ~~Iron~~ Steel "Kamoi" Port belonging to New York S.S. Corp.
 Built at Camden N.J. By whom New York S.S. Corp. When built 1922
 Owners IMPERIAL JAPANESE NAVY Owners' Address General Electric Co.
 Yard No. 264 Electric ~~Light~~ Installation fitted by General Electric Co. When fitted 1922

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One A.C. Generator 2 pole revolving field 3 phase H.V. cycles 2480 RPM. direct coupled to one steam turbine
 two propelling motors synchronous 10 poles direct connected to two tail shafts. Two DC excitation generators 112.5/125 Volts
 & one A.C. auxiliary propulsion generator.
 Capacity of Dynamo 6250 KW. 1540 Amperes at 2300 Volts, whether continuous or alternating current A.C.

Where is Dynamo fixed Engine RoomWhether single or double wire system is used 3 WirePosition of Main Switch Board Contactorhaving switches to groups of 5

of lights, &c., as below

Positions of operating panels

Instruments

on each Engine room. Temp & Amps. Main gen field, Kilowatts & Volts

Main generator; amp (field & stat) & speed indicator for each propelling motor; 12.5 protective relays; turbine speed indicator;
 Excitation indicator, DC amp neutral, field rheostat. Volts ammeter, switches, operating levers for hands electric control

If fuses are fitted on main switch board to the cables of main circuit

and on each auxiliary switch board to the cables of auxiliary

circuits

and at each position where a cable is branched or reduced in size

and to each lamp circuit

If vessel is wired on the double wire system are fuses fitted to both flow and return wires or cables of all circuits including lamp circuits

Are the fuses of non-oxidizable metal

and constructed to fuse at an excess of

per cent over the normal current

Are all fuses fitted in easily accessible positions

Are the fuses of standard dimensions.

If wire fuses are used

are permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases

Total number of lights provided for

arranged in the following groups:—

A lights each of candle power requiring a total current of Amperes

B lights each of candle power requiring a total current of Amperes

C lights each of candle power requiring a total current of Amperes

D lights each of candle power requiring a total current of Amperes

E lights each of candle power requiring a total current of Amperes

Mast head light with lamps each of

candle power requiring a total current of

Amperes

Side light with lamps each of

candle power requiring a total current of

Amperes

Cargo lights of

candle power, whether incandescent or arc lights

If arc lights, what protection is provided against fire, sparks, &c.

Where are the switches controlling the masthead and side lights placed

DESCRIPTION OF CABLES.

Main cable carrying Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area

Branch cables carrying Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area

Branch cables carrying Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area

Leads to lamps carrying Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area

Cargo light cables carrying Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Generator armature coils:—Mica tape protected by two layers of
 linen tape & 6 coats of insulating varnish each coat baked until dry horn fibre shot armour. Field insulation:—Mica
 & asbestos with horn fibre shot armour. Main motors: Black cloth & varnished cambric compounded & paraffined

Joints in cables, how made, insulated, and protected See plan.

Joints in coils:—Rotor coils pinched & soldered; armature coils clipped & soldered.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances Yes Are all joints in accessiblepositions, none being made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage Yes:Are there any joints in or branches from the cable leading from dynamo to main switch board YesHow are the cables led through the ship, and how protected Special leadings.

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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat

What special protection has been provided for the cables near boiler casings

What special protection has been provided for the cables in engine room

How are cables carried through beams

through bulkheads, &c.

How are cables carried through decks

Are any cables run through coal bunkers or cargo spaces or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage

If so, how are the lamp fittings and cable terminals specially protected

Where are the main switches and fuses for these lights fitted

If in the spaces, how are they specially protected

Are any switches or fuses fitted in bunkers

Cargo light cables, whether portable or permanently fixed

How fixed

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel

How are the returns from the lamps connected to the hull

Are all the joints with the hull in accessible positions

Is the installation supplied with a voltmeter and with an amperemeter, fixed

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas

Are any switches, fuses, or joints of cables fitted in the pump room or companion

How are the lamps specially protected in places liable to the accumulation of vapour or gas

The copper used is guaranteed to have a conductivity of not less than that of the Engineering Standards Committee's standard, and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables ~~is guaranteed to have~~ ^{has} a resistance ^{under test of} of not less than 850 megohms per statute mile at 15.5° C after 24 hours' immersion in water, the test being made after ~~one~~ ^{five} minute's electrification at not less than 1500 volts and while the cable is still immersed.

The foregoing statements are a correct description of the Electric Light installation fitted by us on this vessel and we declare that it is at this date in good order and safe working condition.

W. L. Wright, Marine Eng. & Gen. Elec. Co. Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
A cable carrying	Amperes	feet from standard compass	feet from steering compass
A cable carrying	Amperes	feet from standard compass	feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power

The maximum deviation due to electric currents, etc., 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.

Builder's Signature. Date

GENERAL REMARKS.

This machinery has been built under Special Survey materials & workmanship good. It has been shipped to Camden N.J. for installation in the vessel. THE GENERATORS & MOTORS HAVE BEEN

SECURED ON BOARD IN A SATISFACTORY MANNER THEY WERE TRIED UNDER FULL WORKING CONDITIONS ON TRIAL TRIP & WERE FOUND SATISFACTORY.

William D. Bates. M. Buchanan.

Surveyor to Lloyd's Register of Shipping.

NEW YORK JUE. 26 SEP. 1922

Committee's Minute

See Phil. 4445



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(See following)