

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 9211

Port of YOKOHAMA. Date of First Survey 3rd March Date of Last Survey 5th March/06 No. of Visits 2
 No. in Reg. Book 152 on the Iron or Steel s. s. "Dennachar" Port belonging to Glasgow.
 Built at Port Glasgow By whom Russell & Co. When built 1904
 Owners Dennachar S. S. Coy. Owners' Address Glasgow.
 Yard No. Electric Light Installation fitted by Li Shokai, Tokio When fitted March, 1906

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Brush Victoria, 8 pole, continuous current, direct coupled to engine.
Hillans compound, two crank, vertical.

Capacity of Dynamo 120 Amperes at 80 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed In Engine Room

Position of Main Switch Board In Engine Room having switches to groups six groups of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Cut outs and switches on all bulkheads.

If cut outs are fitted on main switch board to the cables of main circuit Yes and on each auxiliary switch board to the cables of auxiliary circuits Yes and at each position where a cable is branched or reduced in size Yes and to each lamp circuit Yes.

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

Are the cut outs of non-oxidizable metal Yes and constructed to fuse at an excess of 50 per cent over the normal current

Are all cut outs fitted in easily accessible positions Yes Are the fuses of standard dimensions Yes 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 No.

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases Yes.

Total number of lights provided for 20 of 16 C.P. & 50 of 10 C.P. arranged in the following groups:—

A	30	lights each of	16	candle power requiring a total current of	244	Amperes
B	30	lights each of	16	candle power requiring a total current of	244	Amperes
C	30	lights each of	16	candle power requiring a total current of	244	Amperes
D	30	lights each of	16	candle power requiring a total current of	244	Amperes
E	30	lights each of	10	candle power requiring a total current of	144	Amperes
F	20	lights each of	10	" " " " " " " "	10	"
		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 120 Amperes, comprised of 17 wires, each No. 16 L.S.G. diameter, .0547 square inches total sectional area

Branch cables carrying 244 Amperes, comprised of 7 wires, each No. 16 L.S.G. diameter, .0225 square inches total sectional area

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

Leads to lamps carrying 1 Amperes, comprised of 1 wires, each No. 16 L.S.G. diameter, .0032 square inches total sectional area

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

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Rubber tape & jute and Iron pipes.

Joints in cables, how made, insulated, and protected Soldered and insulated with rubber tape and jute.

Are all the joints of cables thoroughly soldered, resin only having been used as a flux Yes. Are all joints in accessible positions, none being made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage this voyage.

Are there any joints in or branches from the cable leading from dynamo to main switch board No.

How are the cables led through the ship, and how protected Iron tubes on top of boilers, stokehold & Engine Room.

Rpt. 13a.



Date 5th March 1906

Supplement to **YOKOHAMA.**

Report No. 9211

on the Steam Ship "Vennachar"

of Glasgow

COMPASSES.

Distance between dynamo or electric motors and standard compass 104 feet

Distance between dynamo or electric motors and steering compass 100

The nearest cables to the compasses are as follows: — one cable on each side of Bridge deck

A cable carrying 30 Amperes 22 feet from standard compass 22 feet from steering compass

A cable carrying 30 Amperes 22 feet from standard compass 22 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 Ship swung & Errors obtained

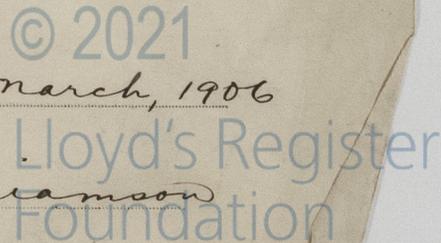
The maximum deviation due to electric currents, etc., was found to be 3° N degrees on S S E course in the case of the standard compass and / degrees on / course in the case of the steering compass.

John Ramsay Pedon Masters Builder's Signature.

Date 27th March, 1906

A. S. Williamson

Surveyor to Lloyd's Register.



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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *Yes.*

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

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Well insulated iron tubes*

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

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

How are cables carried through beams *Under the beams* through bulkheads, &c. *Waterlight brass glands.*

How are cables carried through decks *In iron tube for one in poop.*

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

If so, how are they protected *No protection. All to come out at Odessa.*

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

If so, how are the lamp fittings and cable terminals specially protected *No protection. All to come out at Odessa.*

Where are the main switches and cut outs for these lights fitted *In the Engine room*

If in the spaces, how are they specially protected

Are any switches or cut outs fitted in bunkers *No.*

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

VESSELS BUILT FOR CARRYING PETROLEUM.

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

Are any switches, cut outs, 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 installation is supplied with a voltmeter and an amperemeter, fixed

The copper used is guaranteed to have a conductivity of *98* per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than *400* megohms per statute mile after 24 hours' immersion in seawater.

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.

飯井善吾

Electrical Engineers

Date *5th March 1906*

COMPASSES.

Distance between dynamo or electric motors and standard compass *104 ft.*

Distance between dynamo or electric motors and steering compass *100 ft.*

The nearest cables to the compasses are as follows:—

A cable carrying *24* Amperes *22* feet from standard compass *22* 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 ^{will be} ~~been~~ adjusted with and without the electric installation at work at full power *by the Master before leaving Vladivostok.*

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.

Survey Fee Yen 30⁰⁰ Paid 9/3/06 A.S.W.

Builder's Signature. Date

GENERAL REMARKS.

This installation has been temporarily fitted to enable the ship to carry troops from Vladivostok to Odessa, and is to be removed before loading cargo.

A.S. Williamson.

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

It is submitted that the Record Elec. Light be noted in the Reg. Book.

Lloyd's Register Foundation
12.4.06

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 13.