

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 12138.

Port of Rotterdam Date of First Survey 10.10.11 Date of Last Survey 30.1.21 No. of Visits 5
 No. in Reg. Book on the Iron or Steel CHRISTIANBORG Port belonging to Copenhagen
 Built at Abblasjerdam By whom Jan Smit Can When built 1911
 Owners C. K. Hansen Owners' Address Copenhagen
 Yard No. 403 Electric Light Installation fitted by Petochsten & Hoornvans When fitted 1921

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One steamdynamo, consisting of double acting steam engine, direct coupled to compound wound dynamo

Capacity of Dynamo 100 Amperes at 110 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed in engine room Whether single or double wire system is used double wire

Position of Main Switch Board in marconiroom having switches to groups 5 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each auxiliary switchboard with 4 switches for the lights in engine room, placed in engine-room; distribution boxes in different places

If fuses 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 fuses fitted to both flow and return wires or cables of all circuits including lamp circuits yes

Are the fuses of non-oxidizable metal yes and constructed to fuse at an excess of 100 per cent over the normal current

Are all fuses 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

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

Total number of lights provided for 224 arranged in the following groups:—

A	65 lights:	3 lights each of 4000 c.p. 62 lead of 32 candle power requiring a total current of	27	Amperes
B	55 "	: 3 lights each of 1000 c.p. 62 " " 32 candle power requiring a total current of	36	Amperes
C	14 "	: all lights each of 32 candle power requiring a total current of	4	Amperes
D	54 "	: 2 lights each of 1000 c.p. 52 lead of 32 candle power requiring a total current of	29	Amperes
E	29 "	: all lights each of 32 candle power requiring a total current of	10	Amperes
	2 Mast head light with 1 lamp each of	32 candle power requiring a total current of	0,35	Amperes
	2 Side light with 1 lamps each of	32 candle power requiring a total current of	0,35	Amperes

10 Cargo lights: of 5 of 1000 c.p. 52 lead of 32 candle power, whether incandescent or arc lights incandescent

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

Where are the switches controlling the masthead and side lights placed in chartroom

DESCRIPTION OF CABLES.

Main cable carrying	100 Amperes, comprised of	19 wires, each	2,14 mm S.W.G. diameter,	70 square inches total sectional area
Branch cables carrying	36 Amperes, comprised of	7 wires, each	1,41 " S.W.G. diameter,	16 square inches total sectional area
Branch cables carrying	29 Amperes, comprised of	7 wires, each	1,35 " S.W.G. diameter,	10 square inches total sectional area
Leads to lamps carrying	0,35 Amperes, comprised of	1 wires, each	1,38 " S.W.G. diameter,	15 square inches total sectional area
Cargo light cables carrying	2 Amperes, comprised of	24 wires, each	0,45 " S.W.G. diameter,	4 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Tinned copper wire, insulated with pure T.P. white vulcanised T.P., black vulcanised T.P., T.P. coated tape, lead covered and armoured; leads to lamps in cabins etc. lead covered, not armoured.

Joints in cables, how made, insulated, and protected no joints.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances 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

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 in galvanised iron tubes.



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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 leadcovered and armoured

What special protection has been provided for the cables near gulleys or oil lamps or other sources of heat leadcovered and armoured

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

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

How are cables carried through beams through hard wood fittings through bulkheads, &c. hard wood fittings

How are cables carried through decks brass or galvanised iron tubes

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

If so, how are they protected galvanised iron tubes

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage no

If so, how are the lamp fittings and cable terminals specially protected no

Where are the main switches and fuses for these lights fitted no

If in the spaces, how are they specially protected no

Are any switches or fuses fitted in bunkers no

Cargo light cables, whether portable or permanently fixed portable How fixed no

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel no

How are the returns from the lamps connected to the hull no

Are all the joints with the hull in accessible positions no

Is the installation supplied with a voltmeter yes, and with an amperemeter yes, fixed on switchboard in engine room

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 no

Are any switches, fuses, or joints of cables fitted in the pump room or companion no

How are the lamps specially protected in places liable to the accumulation of vapour or gas no

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 a resistance of not less than 2000 megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 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.

J. J. Van Rietschoten & Hooyens
 N. V. Van Rietschoten & Hooyens
 Technisch Bureau
 Electrical Engineers Date

COMPASSES.

Distance between dynamo or electric motors and standard compass 33 M

Distance between dynamo or electric motors and steering compass 36 "

The nearest cables to the compasses are as follows:—

A cable carrying	<u>0, 1</u>	Amperes	<u>1</u>	feet from standard compass	<u>5</u>	feet from steering compass
A cable carrying	<u>0, 1</u>	Amperes	<u>5</u>	feet from standard compass	<u>1</u>	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 no

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.

SCHEEPSWERF VOORHEEN JAN SMIT GZ.

J. J. Van Rietschoten
 Builder's Signature. Date

GENERAL REMARKS. *This installation has been fitted in accordance with the Rules, was found in a good working condition when tried and merits in my opinion the Committee's approval*

It is submitted that this vessel is eligible for THE RECORD. Elec. Light. 2.4. 22/2/22.

J. J. Van Rietschoten
 Surveyor Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

2011.20-1 Transfer.

