Rpt. 13.

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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1994 b.

Port of Christiania Date of First Survey 4/12-19 Date of Last Survey 4/12-19 No. of Visits 1

No. in Reg. Book on the Iron or Steel "SORKA" Port belonging to Tønsberg

Built at Kaldnes mek. Verksted Tønsberg By whom Kaldnes mek. Verksted When built 1919

Owners Henr. K. Henriksen Owners' Address Tønsberg

Yard No. 39 Electric Light Installation fitted by MOERS ELEKTRISKE FORRETNING A/S When fitted 4/12-19.

Tønsberg Mask.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Capacity of Dynamo 55 Amperes at 65 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed ship's bottom Whether single or double wire system is used double

Position of Main Switch Board ship's side having switches to groups 6 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each no auxiliary switch boards.

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 —— 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 partly and constructed to fuse at an excess of 100 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 yes

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

Total number of lights provided for 33 arranged in the following groups :—

A	#7	lights each of	32	candle power requiring a total current of	3,5	Amperes
B	6	lights each of	25	candle power requiring a total current of	2,4	Amperes
C	6	lights each of	32	candle power requiring a total current of	3	Amperes
D	#6	lights each of	25	candle power requiring a total current of	2,4	Amperes
E	#3	lights each of	50	candle power requiring a total current of	2,4	Amperes
1	Mast head light with	1	lamps each of	50	candle power requiring a total current of	1 Amperes
2	Side light with	1	lamps each of	50	candle power requiring a total current of	2 Amperes
2	Cargo lights of	5	lamps each		candle power, whether incandescent or arc lights	5

1 search light arc light enclosed. 25 amp.

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

Where are the switches controlling the masthead and side lights placed on the main switch board

DESCRIPTION OF CABLES.

Main cable carrying	55	Amperes, comprised of	2	wires, each	16 m/m area	L.S.G. diameter, —— square inches total sectional area
Branch cables carrying	5	Amperes, comprised of	2	wires, each	1.5	L.S.G. diameter, square inches total sectional area
Branch cables carrying	3	Amperes, comprised of	2	wires, each	1.5	L.S.G. diameter, square inches total sectional area
Leads to lamps carrying	1	Amperes, comprised of	2	wires, each	1.5	L.S.G. diameter, square inches total sectional area
Cargo light cables carrying	5	Amperes, comprised of	2	wires, each	1.5	L.S.G. diameter, square inches total sectional area
search light	25	— —	2	" -	6	"

DESCRIPTION OF INSULATION, PROTECTION, ETC.

wire is black covered vulcanized and tinned copper wire in tinned iron-tubes and steel-tubes

Joints in cables, how made, insulated, and protected soldered vulcanized and protected by tarred ribbons

Are all the joints of cables thoroughly soldered, resin only having been used as a flux soldering paste 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 yes

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 tinned iron and steel-tubes

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 tinned iron tubes

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

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

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

How are cables carried through beams tinned iron tubes *through bulkheads, &c.* tinned iron tubes

How are cables carried through decks tinned iron tubes

Are any cables run through coal bunkers no *or cargo spaces* — *or spaces which may be used for carrying cargo, stores, or baggage* yes

If so, how are they protected tinned 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 —

Where are the main switches and cut outs for these lights fitted —

If in the spaces, how are they specially protected —

Are any switches or cut outs fitted in bunkers —

Cargo light cables, whether portable or permanently fixed portable *How fixed* holder

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 —

The installation is — *supplied with a voltmeter and* — *an amperemeter, fixed* on the switchboard

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 copper used is guaranteed to have a conductivity of 100 *per cent. that of pure copper.*

Insulation of cables is guaranteed to have a resistance of not less than 105 *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.

MOERS ELEKTRISKE FORRETNING A/S
Cato Moers. *Electrical Engineers* *Date* 10/12-19

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.

ELEC: LIGHT. 11/2/20

Per Björn-Rich.
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute FRI. FEB. 20. 1920 FRI. DEC. 17 1920

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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.