

M. S. Marinula

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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 11834

Port of *Plattsburgh* Date of First Survey *25 Jan* Date of Last Survey *17 June* No. of Visits *6*
 No. in Reg. Book on the Iron or Steel *111 MARINULA* Port belonging to *London*
 Built at *Barrow* By whom *Nichols Ltd* When built *1916*
 Owners *Anglo Siam Petroleum Co* Owners' Address *London*
 Yard No. Electric Light Installation fitted by *Pretschke-Hausmann* When fitted

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Three steam dynamo's, consisting of double acting steam engines direct coupled to the dynamo's
 Capacity of 1 Dynamo *2 dynamo's of 170* Amperes at *450* Volts, whether continuous or alternating current *continuous*
 Where is Dynamo fixed *in engine room* Whether single or double wire system is used *double*
 Position of Main Switch Board *in switchboard room near engine room* having switches to groups *4* of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each *no auxiliary switch boards, only 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 *yes*
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases *yes*
 Total number of lights provided for *200* arranged in the following groups:—
 A *Aft S.P.* lights each of *25* candle power requiring a total current of *15* Amperes
 B *Aft Port* lights each of *25* candle power requiring a total current of *15* Amperes
 C *Midship* lights each of *25* candle power requiring a total current of *20* Amperes
 D *Foreship* lights each of *25* candle power requiring a total current of *20* Amperes
 E lights each of candle power requiring a total current of *70* Amperes
2 Mast head light with *1* lamps each of *16* candle power requiring a total current of *1* Amperes
2 Side light with *1* lamps each of *16* candle power requiring a total current of *1* Amperes
6 Cargo lights of *6 lamps a 25* candle power, whether incandescent or arc lights *incandescent*
 If arc lights, what protection is provided against fire, sparks, &c.

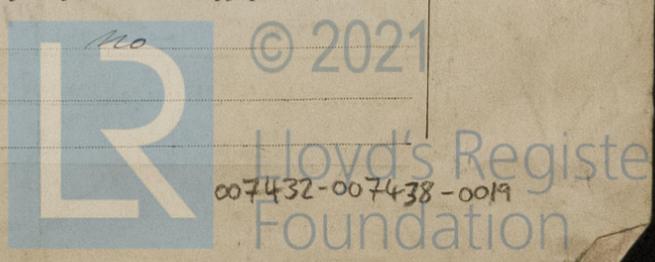
Where are the switches controlling the masthead and side lights placed *Chartroom*

DESCRIPTION OF CABLES.

Main cable carrying	<i>70</i> Amperes, comprised of	<i>19</i> wires, each	<i>2.53</i> m. h. S.W.G. diameter,	<i>95</i> square inches total sectional area
Branch cables carrying	<i>20</i> Amperes, comprised of	<i>19</i> wires, each	<i>1.53</i> S.W.G. diameter,	<i>35</i> square inches total sectional area
Branch cables carrying	<i>20</i> Amperes, comprised of	<i>7</i> wires, each	<i>2.13</i> S.W.G. diameter,	<i>25</i> square inches total sectional area
Leads to lamps carrying	<i>1</i> Amperes, comprised of	<i>1</i> wires, each	<i>1.38</i> S.W.G. diameter,	<i>1.5</i> square inches total sectional area
Cargo light cables carrying	<i>6</i> Amperes, comprised of	<i>24</i> wires, each	<i>0.45</i> S.W.G. diameter,	<i>4</i> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Twines copper wire, insulated with pure I.R., white vulcanised I.R. black vulcanised I.R., I.R. coated Tape, lead covered or lead sheathed and armoured with galvanized wire
 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 *no* 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 *with clips*



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 armoured lead covered cable

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

What special protection has been provided for the cables near boiler casings armoured lead covered cable

What special protection has been provided for the cables in engine room armoured lead covered cable

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

How are cables carried through decks through glands or brass tubes

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

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 no

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 no

Cargo light cables, whether portable or permanently fixed portable 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 yes and with an amperemeter yes, fixed near dynamo on switchboard and in office chief engineer.

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 yes

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 gas tight fittings

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 _____ 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.

N. V. Van Rietschoten & Houwen
Technisch-Industrieel M^g.

Electrical Engineers

Date 16/6/21

COMPASSES.

Distance between dynamo or electric motors and standard compass + 300 feet

Distance between dynamo or electric motors and steering compass + 300 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>0.5</u>	Amperes	<u>1</u>	feet from standard compass	<u>6</u>	feet from steering compass
A cable carrying	<u>0.5</u>	Amperes	<u>6</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 yes

The maximum deviation due to electric currents, etc., was found to be nil degrees on every course in the case of the standard compass and nil degrees on every course in the case of the steering compass.

Builder's Signature. Date _____

GENERAL REMARKS.

The installation has been fitted in the United Kingdom and the engine room has been rearranged after removal of several electric drive auxiliaries at this port. It has been running satisfactorily during an extensive trial and is submitted for the approval of the Committee.

It is submitted that this vessel is eligible for THE RECORD. The light of _____

A. P. J. G.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute _____

See order Y.P. R. 24/6/21 f. 60



THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

1 in. 7.10.—Transfer.