

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 11834

Port of *Plasidun* 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* *11 MARINULA* Port belonging to *London*  
 Built at *Barnes* By whom *Vickers Ltd* When built *1916*  
 Owners *Anglo Saxon Refinery Co* Owners' Address *London*  
 Yard No. *100* 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*  
*2 dynamo's of 170*  
 Capacity of Dynamo *450* Amperes at *220* 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.B.* 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 at 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.

Description	Amperes	Wires	W.G. diameter	Square inches	Total sectional area
Main cable carrying	70	19	2.53	95	18.5
Branch cables carrying	20	19	1.53	35	6.7
Branch cables carrying	20	7	2.13	25	5.0
Leads to lamps carrying	1	1	1.38	1.5	0.3
Cargo light cables carrying	6	24	0.45	4	0.8

## 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 covered and armoured with galvanised 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 *no*

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*



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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 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 of 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 - Industriële M.A.

Electrical Engineers

Date 16/6/11

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	Amperes	feet from standard compass	feet from steering compass
0.5	1	6	
0.5	6	1	

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 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

See after Y.R. 24/6/11 f. 60



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