

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 86129.

Port of London Date of First Survey                      Date of Last Survey 20<sup>th</sup> NOVEMBER 1922 No. of Visits                       
 No. in Reg. Book                      on the Iron Steel Merryweather Fire Float Port belonging to London  
 Built at Milwall London By whom Edwards of 5/8789 When built 1922  
 Owners Rangoon port Commissioners Owners' Address                       
 Yard No. 789 Electric Light Installation fitted by Merryweather & Sons, Ltd. When fitted 1922

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

H.S. Engine direct coupled to compound wound dynamo running @ 700 r.p.m.

Capacity of Dynamo 9 k.w., 90 Amperes at 100 Volts, whether continuous or alternating current continuous  
 Where is Dynamo fixed Star<sup>d</sup> of engine room Whether single or double wire system is used double  
 Position of Main Switch Board alongside dynamo main and two other having switches to groups                      of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each one projector on forward awning (1)  
one distribution board in engine room - 4 single pole switches (2)  
one distribution board in cabin - 5 single pole switches (no circuit switch)  
 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 no 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                      per cent over the normal current  
 Are all fuses fitted in easily accessible positions Yes Are the fuses of standard dimensions                      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 27 arranged in the following groups:—

A	9 (engine room hold)	lights each of	32	candle power requiring a total current of	2.7	Amperes
B	5 (d.k. cabin galley)	lights each of	32	candle power requiring a total current of	1.5	Amperes
C	8 (boiler room crew)	lights each of	32	candle power requiring a total current of	2.4	Amperes
D	*5 (navigating)	lights each of	32	candle power requiring a total current of	1.5	Amperes
E		lights each of		candle power requiring a total current of		Amperes
*	{	3 Mast head light with	1 lamps each of	32	candle power requiring a total current of	Amperes
		2 Side light with	1 lamps each of	32		

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 Captain's cabin

## DESCRIPTION OF CABLES.

Main cable carrying 90 Amperes, comprised of 147 wires, each 24 S.W.G. diameter, .0546 square inches total sectional area  
 Branch cables carrying 80 Amperes, comprised of 19 wires, each 16 S.W.G. diameter, .060 square inches total sectional area  
 Branch cables carrying 10 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .022 square inches total sectional area  
 Leads to lamps carrying 5 Amperes, comprised of 3 wires, each .029 S.W.G. diameter, .002 square inches total sectional area  
 Cargo light cables carrying                      Amperes, comprised of                      wires, each                      S.W.G. diameter,                      square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Lead covered cable rubber insulated

Joints in cables, how made, insulated, and protected                     

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances 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 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 Under deck beams. Lead covered cable.

**DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.**

Are they in places always accessible *except over boiler when steam is up*

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *Lead covered cable*

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

What special protection has been provided for the cables near boiler casings *Lead covered cable*

What special protection has been provided for the cables in engine room *Lead covered cable*

How are cables carried through beams *through bulkheads, &c. Wooden plug.*

How are cables carried through decks *through metal pipe*

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

If so, how are they protected *Lead covered cable*

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

If so, how are the lamp fittings and cable terminals specially protected

Where are the main switches and fuses for these lights fitted *engine room*

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 *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 *on main switch*

**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

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 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.

*Merryweather & Sons Ltd* Electrical Engineers

Date *25.11.22*

**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 (projector) <i>80</i> Amperes <i>5</i> feet from standard compass	<i>—</i> feet from steering compass
A cable carrying (nav. light) <i>1/3</i> Amperes <i>3</i> feet from standard compass	<i>—</i> feet from steering compass
A cable carrying <i>000</i> Amperes	<i>—</i> 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 *✓* course in the case of the standard compass and *NIL* degrees on *—* course in the case of the steering compass.

*Merryweather & Sons Ltd* Builder's Signature.

Date *25.11.22.*

**GENERAL REMARKS.**

*The above work carried out in accordance with the Society's Rules & the workmanship good.*

**It is submitted that this vessel is eligible for THE RECORD.**

*elec. Light*

*Thomas Blackley*

Surveyor to Lloyd's Register of Shipping.

*See L.R. 0.0 (see entry on page 41 on machinery) 7/12/22*

Committee's Minute

FRI. 8 DEC. 1922

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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