

REPORT ON ELECTRIC LIGHTING INSTALLATION.

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No. 11115

Port of *Southampton*Date of First Survey *3. 11. 21.*Date of Last Survey *19. 12. 21.*No. of Visits *4.*No. in
Reg. Book

on the Iron or Steel

"Maid of Spetsai"

Port belonging to

London

Built at

Woolston Southampton

By whom

Messrs J. I. Thornycroft & Co.

When built

1921

Owners

Byron S.S. Co. Ltd

Owners' Address

Yard No.

1000

Electric Light Installation fitted by

Messrs J. I. Thornycroft & Co.

When fitted

1921

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Generating machinery consists of a 6 Kilowatt continuous current compound wound dynamo direct coupled to a vertical open type engine. Both machines being mounted on a combined baseplate.

Capacity of Dynamo

55

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

Position of Main Switch Board

In Engine Room

having switches to groups

A. B. C. D. E.

of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each

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 *50* 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 *Marked on Fuse*

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

Total number of lights provided for *45* arranged in the following groups:—

A	28	lights each of	16 cp Metal Filament	requiring a total current of	8.4	Amperes
B	12	lights each of	16	candle power requiring a total current of	7.2	Amperes
C	25	lights each of	16	candle power requiring a total current of	15.0	Amperes
D	10	lights each of	9 16	candle power requiring a total current of	5.4	Amperes
E	4 Cargo	lights each of	1 32	candle power requiring a total current of	1.2	Amperes
	12 Mast head lights with	1 lamps each of	16	candle power requiring a total current of	19.0	Amperes
	2 Side lights with	1 lamps each of	16	candle power requiring a total current of	1.2	Amperes
	4 Cargo lights of		5 1/2 (Total)	candle power, whether incandescent or arc lights	1.8	Amperes

If arc lights, what protection is provided against fire, sparks, &c. *Incandescent*
the Lights not fitted

Where are the switches controlling the masthead and side lights placed *In the Wheel House embodied in Navigation Indicator*

DESCRIPTION OF CABLES.

Main cable carrying	55	Amperes, comprised of	19	wires, each	.064" diameter,	.06	square inches total sectional area
Branch cables carrying	8.4	Amperes, comprised of	7	wires, each	.029" diameter,	.0045	square inches total sectional area
Branch cables carrying	15	Amperes, comprised of	3	wires, each	.036" diameter,	.003	square inches total sectional area
Leads to lamps carrying	9.6	Amperes, comprised of	3	wires, each	.029" diameter,	.002	square inches total sectional area
* Cargo light cables carrying	7.2	Amperes, comprised of	10	wires, each	.0076" diameter,	.003	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables throughout to be insulated with one layer of Pure + 2 layers of Vulcanised India-rubber taped, and then vulcanised together, and finished with a seamless tube of lead.

Flexible cables insulated with 1 layer of pure + 2 layers of vulcanised I.R. taped and vulcanised together & compounded. The cores twisted together & taped braided & compounded. The heavy file and thoroughly compounded overall.

Joints in cables, how made, insulated, and protected

No joints made

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 *Secured by clips to Ships structure and run in Conduit. Protected where necessary by Conduit and over plating*

* Twin Flexible cable only. Lead cased cable included under "Branch cables"

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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 Lead covered cable considered sufficient protection

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Cables not run near heat in these spaces

What special protection has been provided for the cables near boiler casings Run in conduit where necessary

What special protection has been provided for the cables in engine room Conduit & Plating as necessary

How are cables carried through beams Through Bushes through bulkheads, &c. Through Bulkhead glands

How are cables carried through decks Through Deck Lulls

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 Permanent to Socket Connection How fixed Permanent wiring to Ship's structure and in conduit

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 Switchboard

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

Are any switches, fuses, or joints of cables fitted in the pump room or companion

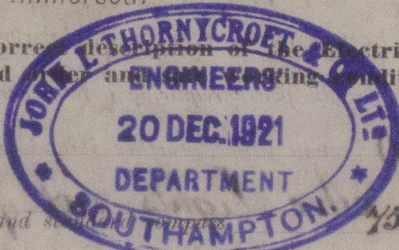
How are the lamps specially protected in places liable to the accumulation of vapour or gas

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 600 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 working condition.

J. Donaldson.



Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass 45'-0" approx

Distance between dynamo or electric motors and steering compass 68'-0" approx

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	On	feet from standard compass	feet from steering compass
6	Amperes	On	from standard compass	feet from steering compass
2.4	Amperes	On	from standard compass	feet from steering compass
6.6	Amperes	10	feet from standard compass	8 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.

J. Donaldson.



Builder's Signature.

Date

GENERAL REMARKS.

This installation of electric light has been well fitted. The materials and workmanship are good. It has been tried under full working conditions & found satisfactory.

6 K.W.
Fee £6.0:0.

23/12/21
SENT.

It is submitted that this vessel is eligible for RECORD. Elec. Light.

29/12/21

J. G. MacKillop
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 3 JAN. 1922

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.