

28 AUG 1926

## REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 5360

Port of KobeDate of First Survey 16.6.26Date of Last Survey 9.7.26No. of Visits 3No. in on the Steel MotorshipNODA MARUPort belonging to KobeBuilt at HarimaBy whom Kobe Steel Inds. Harima Dockyard When built 1926Owners Empire Shipping Co.Owners' Address Tokyo.Yard No. 122

Electric Light Installation fitted by

Newton, Sauntun England & Harima DockyardWhen fitted 1926

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Petrol and/or paraffin single cylinder engine coupled to direct current dynamo.Capacity of Dynamo 1 1/2 K.W Amperes at100Volts, whether continuous or alternating current continuousWhere is Dynamo fixed Engine Room.Position of Main Switch Board - do -having switches to groups A, B, C

of lights, &amp;c., as below

Positions of auxiliary switch boards and numbers of switches on each

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 Yes and at each position where a cable is branched or reduced in size Yes and to each lamp circuit YesIf 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 YesAre the cut outs of non-oxidizable metal Yes and constructed to fuse at an excess of 25% per cent over the normal currentAre all cut outs fitted in easily accessible positions Yes Are the fuses of standard dimensions Yes If wire fuses are usedare permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit YesAre all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases Yes.Total number of lights provided for 21 arranged in the following groups:—

A <u>Stowage</u> <u>1</u>	lights each of	<u>52</u>	candle power requiring a total current of	<u>.4</u>	Amperes
B <u>Accommodation</u> <u>11</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>2.2</u>	Amperes
C <u>Engine Room</u> <u>5</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>1.0</u>	Amperes
D	lights each of		candle power requiring a total current of		Amperes
E	lights each of		candle power requiring a total current of		Amperes
A [ <u>1</u> Mast head light with <u>1</u> lamps each of		<u>32</u>	candle power requiring a total current of		Amperes
<u>2</u> Side light with <u>1</u> lamps each of		<u>52</u>	candle power requiring a total current of	<u>.4</u>	Amperes
<u>1</u> Cargo lights of		<u>200</u>	candle power, whether incandescent or are lights	<u>1.0</u>	Amperes

If are lights, what protection is provided against fire, sparks, &c. YesWhere are the switches controlling the masthead and side lights placed Chart room.

## DESCRIPTION OF CABLES.

Main cable carrying <u>21</u> Amperes, comprised of <u>7</u> wires, each <u>18</u> L.S.G. diameter, <u>.0176</u> square inches total sectional area
Branch cables carrying <u>6</u> Amperes, comprised of <u>1</u> wires, each <u>16</u> L.S.G. diameter, <u>.0032</u> square inches total sectional area
Branch cables carrying <u>Amperes</u> , comprised of <u>wires</u> , each <u>L.S.G. diameter</u> , <u>square inches total sectional area</u>
Leads to lamps carrying <u>3.5</u> Amperes, comprised of <u>1</u> wires, each <u>18</u> L.S.G. diameter, <u>.0018</u> square inches total sectional area
Cargo light cables carrying <u>3.5</u> Amperes, comprised of <u>1</u> wires, each <u>18</u> L.S.G. diameter, <u>.0018</u> square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Lead covered & armoured.

Joints in cables, how made, insulated, and protected

Junction boxes.Are all the joints of cables thoroughly soldered, resin only having been used as a flux 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 YesAre there any joints in or branches from the cable leading from dynamo to main switch board YesHow are the cables led through the ship, and how protected Lead lined & armoured.



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*

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

What special protection has been provided for the cables near boiler casings *✓*

What special protection has been provided for the cables in engine room *armoured*

How are cables carried through beams *✓* through bulkheads, &c. *glands*

How are cables carried through decks *glands*

Are any cables run through coal bunkers *✓* or cargo spaces *yes* or spaces which may be used for carrying cargo, stores, or baggage *✓*

If so, how are they protected *armoured*

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

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 *portables* How fixed *socket*

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 *✓*

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 installation is *supplied with a voltmeter and* an amperemeter, fixed

The copper used is guaranteed to have a conductivity of *15%* per cent. that of pure copper.

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

Electrical Engineers Date

COMPASSES.

Distance between dynamo or electric motors and standard compass *15 ft*

Distance between dynamo or electric motors and steering compass *✓*

The nearest cables to the compasses are as follows:—  
(*Cable to compass lamp*)

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>2</i>		<i>1</i>	
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.

*This installation has been fitted on board in accordance with the Rules, tried under working conditions & found satisfactory.*

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

*3/8/26* Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute *FRI. 3 SEP 1926*

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.