

MON. JUL 10¹⁰ 1922
No. 3545

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Capacity of Dynamo 170 Amperes at 100 Volts, whether continuous or alternating current continuous.

Where is Dynamo fixed In the engine room Whether single or double wire system is used double

Position of Main Switch Board In the engine room having switches to groups A, B, C & D of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each 3 in the engine room, 1 in the boiler room, 3 on the upper deck, 8 on the awning deck, 1 on the bridge deck and 1 on the navigation bridge having one main switch on each board.

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, porcelain & marble are used.

Total number of lights provided for 227 arranged in the following groups:—

A 15 lights each of 5 candle power requiring a total current of 2.63 Amperes.

B 147 lights each of 16 candle power requiring a total current of 35.28 Amperes.

61 lights each of 32 candle power requiring a total current of 68.32 Ampere

E	2	lights each of	1500	candle power requiring a total current of	10.00	Amperes
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2	Vast head light with	2	lamps each of	.32	candle power requiring a total current of	2.24	Ampere
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2	Side light with	2	lamps each of	32	candle power requiring a total current of	2.24	Ampere
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14. Name, type of _____ 128 x 1500 candle power, whether incandescent or are lights incandescent

17. Are rights, what protection is provided against fire, sparks, &c.

DESCRIPTION OF CABLES.

Main cable carrying 170.00 Amperes, comprised of 2500 wires, each No. 30 S.W.G. diameter, 0.3000 square inches total sectional area

Branch	14.76	"	"	14	"	"	No. 20	"	"	0.0140	✓	"	"	"	"
Branch cables carrying	40.71	Ammperes, comprised of	19	wires, each	No. 20	S. W. G. diameter,	0.0190	square inches total sectional area							

Branch cables carrying 31.88 Amperes, comprised of 19 wires, each No. 20 S.W.G. diameter, 0.0190 square inches total sectional area.

Leads to lamps carrying 2.5 Amperes, comprised of 1 wire, each No. 18 S.W.G. diameter, 0.02818 square inches total sectional area

Cargo light cables carrying 50 Amperes comprised of 234 wires, each No. 38 S.W.G. diameter, 0.066 square inches total sectional area.

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Conductors are doubly insulated with india rubber and vulcanized rubber & tape.

Cables are protected against mechanical injury and chemical action by steel armour

ing or lead covering according to the requirements.

Joints in cables, how made, insulated, and protected Mechanical joints are made throughout and protect

ed with water-tight boxes.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances Yes. Are all joints in access

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 None.

How are the cables led through the ship, and how protected. Cables are led unconcealed and without any

additional protections beside those on the cables themselves.

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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *They are all in accessible places.*
 What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *without any additional protections beside those on the cables themselves.*
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *as before.*
 What special protection has been provided for the cables near boiler casings *as before.*
 What special protection has been provided for the cables in engine room *In some parts where necessary the cables are led through iron pipes.*
 How are cables carried through beams *Pierced through and wood lined.* through bulkheads, &c. *Pierced through & provided with water light glands.*
 How are cables carried through decks *Pierced and led through iron pipes.*
 Are any cables run through coal bunkers *Yes* or cargo spaces *Yes* or spaces which may be used for carrying cargo, stores, or baggage *Yes.*
 If so, how are they protected *With lead covering and steel armouring on the cables themselves.*
 Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *None.*
 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 *None*
 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, 2 ammeters, fixed on a marble switch-board.*

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 order and safe working condition.

S. Tada

Electrical Engineers

Date *7th June, 22*

COMPASSES.

Distance between dynamo or electric motors and standard compass	Dynamo - Standard Compass	110 feet.
	Motor - " "	115 feet.
Distance between dynamo or electric motors and steering compass	Dynamo - Steering " "	165 feet.
	Motor - " "	160 "

The nearest cables to the compasses are as follows:—

A cable carrying	2.4	Amperes	4	feet from standard compass	244	feet from steering compass
A cable carrying	11.0	Amperes	12	feet from standard compass	244	feet from steering compass
A cable carrying	4.0	Amperes	240	feet from standard compass	7	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.

Kawasaki Dockyard Co., Ltd.

For

Secretary.

Builder's Signature.

Date *7th June, 1922.*
25th May, 22.

GENERAL REMARKS.

This Installation has been fitted in accordance with the Rules and worked satisfactorily on trial.

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

A. Watt.

Surveyor to Lloyd's Register of Shipping.

Men 240 paid 1/6/22.

FRI. JUL 14 1922

Committee's Minute

Elec Lt



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.