

REPORT ON ELECTRIC LIGHTING INSTALLATION. No.

Port of Kobe Date of First Survey 8th Aug Date of Last Survey Oct. 23rd 19 No. of Visits 9
 No. in on the Iron or Steel S.S. YONAN MARU Port belonging to SHINAHAMA
 Reg. Book Built at INNOSHIMA BINGO By whom OSAKA IRON WORKS LD. When built 1919
 Owners THE TAIYO KISEN KABUSHIKI KAISHA Owners' Address KOBE
 Yard No. 943 Electric Light Installation fitted by THE OSAKA IRON WORKS LD. When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Direct Current Compound Dynamo

Capacity of Dynamo 15 K.W. 150 Amperes at 100 Volts, whether continuous or alternating current D.C.
 Where is Dynamo fixed Starboard side E.R. platform Whether single or double wire system is used Double wire system
 Position of Main Switch Board on Starboard side E.R. framing having switches to groups for main circuit of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each
One for Engine Room One for Crew's quarter, Two for Officer's Room, and
One for Signal light and One for Wireless telegraphy feeder.
 If fuses are fitted on main switch board to the cables of main circuit fitted and on each auxiliary switch board to the cables of auxiliary circuits fitted and at each position where a cable is branched or reduced in size branched and to each lamp circuit branched
 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 fitted
 Are the fuses of non-oxidisable metal yes and constructed to fuse at an excess of 30 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 144 + 2 arc lamps arranged in the following groups:—

A Engine Rm.	29 lights each of	16	candle power requiring a total current of	15.37	Amperes
B Officers "	63 lights each of	10 or 16	candle power requiring a total current of	33.39	Amperes
C Crew's quarter	12 lights each of	10 or 16	candle power requiring a total current of	6.36	Amperes
D Wireless telegraphy	lights each of		candle power requiring a total current of	56	Amperes
E Stern light + Chart Rm.	3 lights each of	16 or 32	candle power requiring a total current of	2.12	Amperes
2 Mast head light with	2 lamps each of	32	candle power requiring a total current of	2.12	Amperes
2 Side light with	2 lamps each of	32	candle power requiring a total current of	2.12	Amperes

Cargo lights of 5x6 + 3x1 clustered 16 candle power, whether incandescent or arc lights Both are used

If arc lights, what protection is provided against fire, sparks, &c. Two arc lamps used and protection is glass globes covered, requiring total current of
 Where are the switches controlling the masthead and side lights placed at Bridge deck

DESCRIPTION OF CABLES.

Main cable carrying 150 Amperes, comprised of lead wires, each 2x50/18 S.W.G. diameter, 0.15 square inches total sectional area
 Branch cables carrying 33.39 Amperes, comprised of do wires, each 7/16 S.W.G. diameter, 0.024 square inches total sectional area
 Branch cables carrying 15.37 Amperes, comprised of do wires, each 7/16 S.W.G. diameter, 0.024 square inches total sectional area
 Leads to lamps carrying 53 Amperes, comprised of wire or lead wires, each 1/18 S.W.G. diameter, 0.003 square inches total sectional area
 Cargo light cables carrying 17.49 Amperes, comprised of do wires, each 19/18 S.W.G. diameter, 0.035 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Officer's Room + Crew's quarter: Lead cover Wire through Wooden covers.
Engine + Boiler space and Cargo hatches: Armoured Wire or through galvanized wrought iron pipes

Joints in cables, how made, insulated, and protected Porcelain box or Cast Iron box are used.

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

How are the cables led through the ship, and how protected By the use of armoured wire and protected through a galvanized wrought iron pipes



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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

By galvanized wrought iron pipes

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

By the use of armoured wire

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

Do.

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

By the use of armoured wire or galvanized W.I. pipes

How are cables carried through beams

Covered with lead sheet

through bulkheads, &c. By grommets with Indian rubber packing

How are cables carried through decks

Through a galvanized W.I. pipe with flanges which fixed to Deck

Are any cables run through coal bunkers

yes or cargo spaces yes or spaces which may be used for carrying cargo, stores, or baggage no

If so, how are they protected

By the use of armoured wires or wires through galvanized W.I. pipes

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

no

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

no

Where are the main switches and fuses for these lights fitted

no

If in the spaces, how are they specially protected

no

Are any switches or fuses fitted in bunkers

no

Cargo light cables, whether portable or permanently fixed

portable

How fixed

no

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel

no

How are the returns from the lamps connected to the hull

no

Are all the joints with the hull in accessible positions

no

Is the installation supplied with a voltmeter

no

and with an amperemeter

no

fixed

no

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 600,000,000 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.

Yasuo, Miyaji Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass

above 90-0"

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying Amperes feet from standard compass feet from steering compass

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.

GENERAL REMARKS.

The installation has been fitted in accordance with the requirements of the Rules and worked satisfactorily on trials

It is submitted that this vessel is eligible for

THE RECORD ELEC. LIGHT

4/2/20

John Sim

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. FEB. 6-1920

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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