

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 14155.

Port of Greenock Date of First Survey 18-4-14 Date of Last Survey 27-6-17 No. of Visits 20
 No. in Reg. Book on the Iron or Steel Steamer "Maipar" Port belonging to Liverpool
 Built at Wm Harrow By whom James W When built 1917
 Owners _____ Owners' Address Liverpool
 Yard No. 695 Electric Light Installation fitted by H. J. Robertson Esq When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two dynamos of Compound wound multipolar (4 pole) type each dynamo coupled direct to a vertical engine having single cylinder 8" dia by 4" stroke @ 275 revs
 Capacity of Dynamos each 150 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamos fixed Engine room Starting platform Whether single or double wire system is used Double wired
 Position of Main Switch Board " " near dynamos having switches to groups A, B, C, D, E, F, G, H of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each No Auxiliary Switchboards

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 60 per cent over the normal current
 Are all fuses fitted in easily accessible positions yes Are the fuses of standard dimensions wire 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 arranged in the following groups: - 1 workshop motor & 2 arc lamps & Search & Signal 21-12" Fans
 A _____ lights each of _____ candle power requiring a total current of _____ Amperes
 B _____ lights each of _____ candle power requiring a total current of _____ Amperes
 C _____ lights each of _____ candle power requiring a total current of _____ 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
 Mast head light with _____ lamps each of _____ candle power requiring a total current of _____ Amperes
 Side light with _____ lamps each of _____ candle power requiring a total current of _____ Amperes
 Cargo lights of _____ candle power, whether incandescent or arc lights

If arc lights, what protection is provided against fire, sparks, &c. Double enclosure globe & strong hexagon lamp
 Where are the switches controlling the masthead and side lights placed In Bridge wheel house

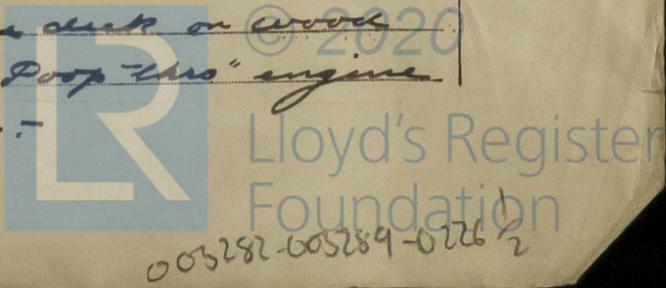
DESCRIPTION OF CABLES.

Main cable carrying 150 Amperes, comprised of 37 wires, each 15 S.W.G. diameter, .151 square inches total sectional area
 Branch cables carrying 35.5 Amperes, comprised of 19 wires, each 18 S.W.G. diameter, .0344 square inches total sectional area
 Branch cables carrying 14.4 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .0225 square inches total sectional area
 Leads to lamps carrying .6 Amperes, comprised of 1 wires, each 17 S.W.G. diameter, .00246 square inches total sectional area
 Cargo light cables carrying 3.6 Amperes, comprised of 119 wires, each 38 S.W.G. diameter, .00322 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

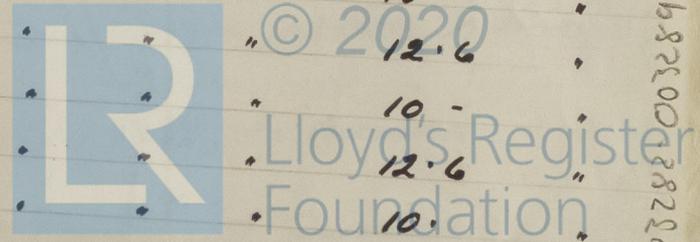
Pure india rubber then vulcanising india rubber, rubber coated tape, the whole vulcanised together, taped & lead covered throughout the accommodation & rooms, other parts galv wire armouring.
 Joints in cables, how made, insulated, and protected no joints

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances no 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 no joints
 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 Forward under bridge deck on wood panels & fore turn deck on girder beam, aft to Prop "No" engine room tunnel, galvanized wire armour.



A	Engine room	41	lights of 16 cp	requiring a total current of	24.6	amperes
B	Motor			" " " "	47.0	"
C	Engineers rooms	23	" " " "	" " " "	17.4	"
	9-Fans		12"	" " " "		
D	Boop	20	" " 16 cp	" " " "		
		1	" " 8"	" " " "	12.3	"
E	Saloon & Stairs	36	" " 16 "	" " " "		
	" " "	5	" " 8 "	" " " "	35.5	"
	" " "	5	" " 32 "	" " " "		
	" " "	1	motor of 42 "	" " " "		
	12-Fans		12"	" " " "		
F	Wireless Circuit			" " " "		
G	Aft Cargo	21	lights of 16 cp	" " " "	15.0	"
	Arc	1	" " 1000 cp	" " " "	12.6	"
H	Forward Cargo	21	lights of 16 cp	" " " "	10.0	"
	Arc	1	" " 1000 cp	" " " "	12.6	"
I	Projector	1	Search Lt for Comms.	" " " "	10.0	"
				" " " "	60	"

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Branch cables carrying 17.4 Amperes, comprised of 4 wires each 1/16 S.W.G. diameter 1.015 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible yes except in Cargo spaces forward
 What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Lead covered or Armoured wire in galvanized iron pipes
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Armoured & Braided
 What special protection has been provided for the cables near boiler casings Armoured & Braided
 What special protection has been provided for the cables in engine room Armoured
 How are cables carried through beams In Lead bushes - through bulkheads, &c. W. J. Glauco ✓
 How are cables carried through decks In galv'd iron pipes ✓
 Are any cables run through coal bunkers no or cargo spaces yes or spaces which may be used for carrying cargo, stores, or baggage yes
 If so, how are they protected Armoured with galv iron wire
 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 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, fixed on 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 order and safe working condition.

A. J. Robertson & Co. Electrical Engineers Date 25 July 1917

COMPASSES.

Distance between dynamo or electric motors and standard compass 100 Feet
 Distance between dynamo or electric motors and steering compass 100 Feet
 The nearest cables to the compasses are as follows:—
 A cable carrying 12 Amperes 6 feet from standard compass 10 feet from steering compass
 A cable carrying 1.2 Amperes 6 feet from standard compass 6 feet from steering compass
 A cable carrying .3 Amperes into feet from standard compass into 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 any course in the case of the standard compass and nil degrees on any course in the case of the steering compass.

A. J. Robertson & Co. Builder's Signature. Date 4th August 1917

GENERAL REMARKS.

The fitting of the wires in this steamer is as stated in this report, and appears to be in accordance with the Committee's requirements.

It is submitted that this vessel is eligible for

THE RECORD. Elec. light.

J. W. D. 15/8/17

James Jones.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW. 14 AUG 1917

Elec. Light



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16c.110-Transfer.

6/18/17