

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 42164

Port of GLASGOW Date of First Survey 13.6.22 Date of Last Survey 4.9.22 No. of Visits 4
 No. in on the Iron or Steel S.S. CHUKY Port belonging to LONDON
 Reg. Book 78418 Built at SCOTSTOUN By whom MESSRS BLYTHSWOOD S.B. COY. When built 1922
 Owners THE SHERIDAN S.S. COY. Owners' Address _____
 Yard No. 3 Electric Light Installation fitted by THE FAIRFIELD S.B. & ENG. COY. LTD. When fitted 1922

DESCRIPTION OF DYNAMO, ENGINE, ETC.

- TOTAL K.W. = 12 -

SINGLE CYLINDER OPEN TYPE ENGINE DIRECT COUPLED TO A COMPOUND WOUND DYNAMO
OF MESSRS W.H. ALLEN SON & COY. MAKE.

Capacity of Dynamo 109 Amperes at 110 Volts, whether continuous or alternating current CONTINUOUS

Where is Dynamo fixed STARBOARD SIDE OF ENGINE ROOM Whether single or double wire system is used DOUBLE

Position of Main Switch Board AT DYNAMO having switches to groups FIVE IN NUMBER of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each NONE

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 NONE 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-oxidisable 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 NO

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

Total number of lights provided for 209 arranged in the following groups:—

A	13	lights each of	{ 9 - 20 WATT 4 - 32	candle power requiring a total current of	6.6	Amperes
B	62	lights each of	30 WATT	candle power requiring a total current of	16.9	Amperes
C	64	lights each of	30 "	candle power requiring a total current of	17.5	Amperes
D	30	lights each of	30 "	candle power requiring a total current of	8.2	Amperes
E	40	lights each of	16	candle power requiring a total current of	24.0	Amperes
2	Mast head light with	1 1/2 lamps each of	32	candle power requiring a total current of	2.02 (INCLUDED IN "A" CIRCUIT)	Amperes
2	Side light with	1 lamps each of	32	candle power requiring a total current of	2.02 (" " ")	Amperes
5	Cargo lights of	128		candle power, whether incandescent or arc lights	INCANDESCENT.	

If arc lights, what protection is provided against fire, sparks, &c.

ONE 14" SEARCHLIGHT ON BRIDGE.

Where are the switches controlling the masthead and side lights placed IN WHEELHOUSE.

DESCRIPTION OF CABLES.

Main cable carrying 109 Amperes, comprised of 19 wires, each .083 S.W.G. diameter, .1000 square inches total sectional area
 Branch cables carrying 6.6 Amperes, comprised of 7 wires, each .029 S.W.G. diameter, .0045 square inches total sectional area
 " " 52.9 " " " 19 " " .052 " " " .0400 " " " " " "
 Branch cables carrying 17.5 Amperes, comprised of 7 wires, each .052 S.W.G. diameter, .0145 square inches total sectional area
 " " 8.2 " " " 7 " " .029 " " " .0045 " " " " " "
 Leads to lamps carrying 28 Amperes, comprised of 1 wires, each .044 S.W.G. diameter, .0015 square inches total sectional area
 Cargo light cables carrying 24 Amperes, comprised of 7 wires, each .044 S.W.G. diameter, .0105 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

ALL MAIN CABLES ARE TWIN V.I.R. LEAD COVERED AND STEEL ARMoured.

ALL WIRING IN CABINS IS LEAD COVERED CLIPPED UP ON SURFACE.

Joints in cables, how made, insulated, and protected NONE.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances NONE 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 NONE

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 LEAD COVERED AND STEEL ARMoured.



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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 & ARMoured.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat LEAD COVERED AND ARMoured.

What special protection has been provided for the cables near boiler casings LEAD COVERED AND ARMoured.

What special protection has been provided for the cables in engine room LEAD COVERED AND ARMoured.

How are cables carried through beams LEAD BUSHES. through bulkheads, &c. WATERTIGHT GLANDS.

How are cables carried through decks WATERTIGHT DECK TUBES.

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 LEAD COVERED AND STEEL ARMoured.

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

If so, how are the lamp fittings and cable terminals specially protected GASTIGHT GUARDED FITTINGS.

Where are the main switches and fuses for these lights fitted IN OPEN SPACE ABOVE.

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 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 YES.

Are any switches, fuses, or joints of cables fitted in the pump room or companion NO.

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

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 FAIRFIELD SHIPBUILDING AND ENGINEERING CO. LIMITED. are a correct description of the Electric Light installation fitted by us on this vessel and we declare this date in good order and safe working condition.

E. Skinner

Electrical Engineers

Date 14th Sept. 1922

COMPASSES.

Distance between dynamo or electric motors and standard compass 240 FEET FROM DYNAMO.

Distance between dynamo or electric motors and steering compass 245 " " "

The nearest cables to the compasses are as follows:—

A cable carrying	<u>28</u>	Amperes	<u>IN</u>	feet from standard compass	feet from steering compass
A cable carrying	<u>28</u>	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 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.

GLYTHSWOOD SHIPBUILDING CO., LTD.

James S. C. Halliday

Builder's Signature.

Date 19th September 1922

GENERAL REMARKS.

This installation has been fitted on board under special survey. Tested under full working conditions found satisfactory. It is submitted that this vessel is eligible for THE RECORD.

PKK - £12-0-0

Paix B. 9.22.

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JWD

J. Rankin

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW

27 SEP 1922

Elec Light



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.