

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 39553.

Port of Glasgow Date of First Survey 4.12.19 Date of Last Survey 20.1.20 No. of Visits 4
 No. in on the Iron or Steel SS "BRANCUS" Port belonging to Haulio (French)
 Reg. Book 35708 Built at Grangemouth By whom Messrs The Grangemouth SBC When built 1919
 Owners Messrs Charquers de L'Ouest Owners' Address _____
 Yard No. 401 Electric Light Installation fitted by Messrs W.C. Marlin & Co. When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 8 K.W. compound wound multipolar dynamo direct coupled to an open type, vertical, single cylinder, double acting steam engine.

Capacity of Dynamo 73 Amperes at 110 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed starting platform in engine room Whether single or double wire system is used double

Position of Main Switch Board near dynamo having switches to groups A, B, C & D of lights, &c., as below

Positions of FUSE boards and numbers of switches on each Fore Space Aft 4-way Steering Engine Recess
1-2 way & 1-4 way, Engine Room 5 way, Saloon Passage 1-2 way & 1-5 way, Chart Room
6 way.

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

Total number of lights provided for 109 arranged in the following groups:—

A Forward navigation 36 lights each of 32, 16, 8 & 6 candle power requiring a total current of 18.5 Amperes

B Aft & Midship 26 lights each of 32 & 16 candle power requiring a total current of 13.5 Amperes

C Engine & Boiler rooms 23 lights each of 16 candle power requiring a total current of 11.5 Amperes

D Cargo clusters 24 lights each of 16 candle power requiring a total current of 12.0 Amperes

E _____ lights each of _____ candle power requiring a total current of 1.02 Amperes

2 Mast head light with 2 lamps each of 32 candle power requiring a total current of 1.02 Amperes

2 Side light with 2 lamps each of 32 candle power requiring a total current of _____ Amperes

4 Cargo lights of 96 candle power, whether incandescent or arc lights incandescent

If arc lights, what protection is provided against fire, sparks, &c. no arc lights

Where are the switches controlling the masthead and side lights placed in chart room

DESCRIPTION OF CABLES.

Main cable carrying 73 Amperes, comprised of 19 wires, each 14 S.W.G. diameter, .094 square inches total sectional area

Branch cables carrying 18.5 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .022 square inches total sectional area

Branch cables carrying 11.5 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0125 square inches total sectional area

Leads to lamps carrying 2.5 Amperes, comprised of 1 wires, each 16 S.W.G. diameter, .0032 square inches total sectional area

Cargo light cables carrying 3.36 Amperes, comprised of 108 wires, each 38 S.W.G. diameter, .0048 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

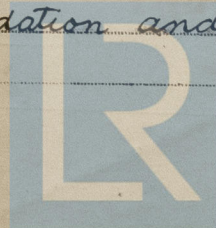
It is copper wire tinned, insulated with pure & vulcanized rubber & tape, the whole vulcanised together, taped, braided & compounded or sheathed with lead or steel armour

Joints in cables, how made, insulated, and protected no joints except on terminals

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances _____ 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 _____

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 in accommodation and steel armour in holds & engine & boiler rooms



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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible yes except when cargo in holds

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Lead covering

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

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

What special protection has been provided for the cables in engine room Steel Armour or Metal Tubes

How are cables carried through beams bushed where unarmoured through bulkheads, &c. W.T. glands

How are cables carried through decks metal tubes fitted watertight to decks

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 Steel Armoured cables clipped openly protected by beams

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 hook connectors

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.

W. C. Martin & Co.

Electrical Engineers

Date 21st Jan'y 1920

COMPASSES.

Distance between dynamo or electric motors and standard compass 61 ft. from Dynamo.

Distance between dynamo or electric motors and steering compass 56 ft. " "

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
28	6	1	
28	1	6	

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 a certain course in the case of the standard compass and nil degrees on the same course in the case of the steering compass.

FOR THE GRANGEMOUTH DOCKYARD CO., LTD.

Alfred Miller

Builder's Signature.

Date 23/1/20

GENERAL REMARKS.

This Installation has been fitted on board under special survey. Tested under full working conditions & found satisfactory in every way.

J. Stanley Rankin

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 27 JAN 1920

Elec. Lights



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