

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 75363

Port of CASTLE OF TYNE Date of First Survey 24/2/22 Date of Last Survey 14/2/22 No. of Visits 4
 No. in 88 on the Iron or Steel KAU 6 D (labeled as Redo) Port belonging to Bilbao
 Reg. Book Blyth Built at Blyth By whom Blyth S B & Co. Ltd When built 1922
 Owners Compania Naviera Bachi Owners' Address Managers, Dijo de Astigarraga
 Yard No. 221 Electric Light Installation fitted by Clarke Chapman & Co Ltd When fitted 1922

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Dynamo multipolar compound wound open type coupled direct to a single cylinder steam engine

Capacity of Dynamo 91 Amperes at 110 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed engine room off side Whether single or double wire system is used double

Position of Main Switch Board engine room off side having switches to groups 4 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each 4 way S.B. in steering engine recess, 8 way O.B. in engine room on engo store, 4 way S.B, 6 way O.B. in saloon passage, 8 way O.B. in chathouse, 4 way O.B. in engineers passage

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 118 arranged in the following groups :-

A Saloon	49	lights each of	16	candle power requiring a total current of	27.4	Amperes
B Eng room	26	lights each of	16	candle power requiring a total current of	14.5	Amperes
C Eng passage	43	lights each of	16	candle power requiring a total current of	24.1	Amperes
D Wireless	-	lights each of	-	candle power requiring a total current of	25	Amperes
E Spare	-	lights each of	-	candle power requiring a total current of	-	Amperes
2 Mast head light with	1	lamps each of	32	candle power requiring a total current of	2.24	Amperes
2 Side light with	1	lamps each of	32	candle power requiring a total current of	2.24	Amperes
5-6 light Cargo lights of			16	candle power, whether incandescent or arc lights	incandescent	

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

Where are the switches controlling the masthead and side lights placed in chathouse.

DESCRIPTION OF CABLES.

Main cable carrying 91 Amperes, comprised of 37 wires, each 16 S.W.G. diameter, .117 square inches total sectional area
 Branch cables carrying 27.4 Amperes, comprised of 7 wires, each 17 S.W.G. diameter, .017 square inches total sectional area
 Branch cables carrying 14.5 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0125 square inches total sectional area
 Leads to lamps carrying 36 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 36 Amperes, comprised of 168 wires, each 38 S.W.G. diameter, .0050 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Main cables are lead covered & demounted, cables in engine room, storehold & tunnel. Wiring in accommodation, bridge lead covered.

Joints in cables, how made, insulated, and protected rose made.

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 through lashed holes in tween decks through beams clipped up to underside of deck.



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 cables

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

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 do

How are cables carried through beams bushed holes through bulkheads, &c. watertight glands

How are cables carried through decks deck 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 lead covered & armoured

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 flexible from watertight sockets how fixed clipped to bulkhead

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.

For Clarke, Chapman & Co. Ltd.

Electrical Engineers

Date March 15th 1922

COMPASSES. A. Walker Chairman

Distance between dynamo or electric motors and standard compass 88 ft

Distance between dynamo or electric motors and steering compass 82"

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
1.1	12	6	6
1.1	6	12	12
—	—	—	—

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 all course in the case of the standard compass and nil degrees on all course in the case of the steering compass.

FOR AND ON BEHALF OF

BLYTH SHIPBUILDING & DRY DOCKS

Builder's Signature.

Date March 23/22

GENERAL REMARKS.

W. Moffatt GENERAL MANAGER. The above installation is in accordance with the Society's Rules. The vessel is eligible in my opinion for notation electric light, wireless

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

W.T. Badger.

Surveyor to Lloyd's Register of Shipping.

Feb 10.0.0 24/2/22

28/3/22

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

