

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 12414H

Port of Breith Date of First Survey 16th May Date of Last Survey 20th June No. of Visits 2
 No. in Reg. Book on the Iron or Steel S.S. Infoco Port belonging to Samia, Ent.
 Built at Hammam By whom Hunnik & Hammam St. 4460 When built 1913
 Owners Imperial Oil Coy. Ltd. Owners' Address Samia, Ent.
 Yard No. 352 Electric Light Installation fitted by Campbell & Sherwood Ltd. When fitted 1913

DESCRIPTION OF DYNAMO, ENGINE, ETC.

A Campbell & Sherwood four pole compound wound dynamo, direct coupled to a Roby engine

Capacity of Dynamo 50 Amperes at 100 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 Stores Bulkhead having switches to groups 3 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Chartroom 8, Engine room 6, and a switch in a convenient position to each light

If cut outs 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 cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits Yes

Are the cut outs of non-oxidizable metal Yes and constructed to fuse at an excess of 75 per cent over the normal current

Are all cut outs 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 cut-outs constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 75 of 16 arranged in the following groups:—

A Forward lights each of 19 of 16 candle power requiring a total current of 10.45 Amperes

B Aft & Navigation lights each of 26 of 16 & 5 of 32 candle power requiring a total current of 19.8 Amperes

C Engine & Boiler lights each of 20 of 16 candle power requiring a total current of 11.00 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

2 Mast head light with 1 lamps each of 32 candle power requiring a total current of Included in B Amperes

2 Side light with 1 lamps each of 32 candle power requiring a total current of 4 Amperes

Cargo lights of candle power, whether incandescent or arc lights

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

Where are the switches controlling the masthead and side lights placed Chartroom

DESCRIPTION OF CABLES.

Main cable carrying 50 Amperes, comprised of 7 wires, each 15 L.S.G. diameter, .028 square inches total sectional area

Branch cables carrying 19.8 Amperes, comprised of 7 wires, each 21 L.S.G. diameter, .0055 square inches total sectional area

Branch cables carrying 11 Amperes, comprised of 7 wires, each 22 L.S.G. diameter, .0042 square inches total sectional area

Leads to lamps carrying 1.65 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area

Cargo light cables carrying Amperes, comprised of wires, each L.S.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Engine & Boiler rooms - vulcanised India rubber lead covering & braided & armoured

Accommodation - vulcanised India rubber lead covered & braided

In exposed places - vulcanised cables in sewed galvanised pipe

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

Are all the joints of cables thoroughly soldered, resin only having been used as a flux — 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 & braided sewed with brass saddle clips. Lead covered armoured & braided & vulcanised cables in iron pipes both clipped up with galvanised iron clips.

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 Leads in pipe

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Lead covered armoured & braided

What special protection has been provided for the cables near boiler casings Lead covered armoured & braided

What special protection has been provided for the cables in engine room Lead covered armoured & braided

How are cables carried through beams False ferules through bulkheads, &c. W.P. glands

How are cables carried through decks Ropes flanged to decks

Are any cables run through coal bunkers No or cargo spaces No or spaces which may be used for carrying cargo, stores, or baggage No

If so, how are they protected _____

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 cut outs for these lights fitted _____

If in the spaces, how are they specially protected _____

Are any switches or cut outs fitted in bunkers No

Cargo light cables, whether portable or permanently fixed None fitted 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 _____

The installation is also supplied with a voltmeter and also an amperemeter, fixed On Main Board

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas Yes

Are any switches, cut outs, 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 Special gas tight fittings

The copper used is guaranteed to have a conductivity of 100 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 1000 megohms per statute mile after 24 hours' immersion in seawater.

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.

Campbell & Isherwood Ltd Electrical Engineers

Date 7th July 1913

COMPASSES.

Distance between dynamo or electric motors and standard compass About 220 ft.

Distance between dynamo or electric motors and steering compass "

The nearest cables to the compasses are as follows:—

A cable carrying	<u>.55</u>	Amperes	<u>1</u>	feet from standard compass	<u>1</u>	feet from steering compass
A cable carrying	<u>1.65</u>	Amperes	<u>6</u>	feet from standard compass	<u>6</u>	feet from steering compass
A cable carrying	<u>7.7</u>	Amperes	<u>6</u>	feet from standard compass	<u>6</u>	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 all course in the case of the standard compass and Nil degrees on all course in the case of the steering compass.

Alfred Miller Builder's Signature.

Date 18th July 1913

GENERAL REMARKS.

This installation appears to have been fitted in a satisfactory manner and in accordance with the Rules.

It is submitted that this vessel is eligible for

THE RECORD. Electlight

5/8 12-8-13

G. N. Stone
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute _____

