

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 13100

Port of WEST HARTLEPOOL Date of First Survey 20th Sept. Date of Last Survey 17th Oct No. of Visits 10
 No. in Reg. Book 20 on the Iron or Steel Tangistan Port belonging to Manica
 Built at West Hartlepool By whom W. Gray & Co. When built 1906
 Owners Messrs. F. C. Strick & Co. Owners' Address London
 Yard No. "736" Electric Light Installation fitted by Clarke Chapman & Co. When fitted 1906

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One single cylinder double acting engine direct coupled to a continuous current compound wound dynamo.

Capacity of Dynamo 140 Amperes at 65 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Engine-room - bottom platform Whether single or double wire system is used Double

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

Positions of auxiliary switch boards and numbers of switches on each On each light or groups of lights
switches are fitted as required.

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 50 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 Slate + ambrain.

Total number of lights provided for 99 arranged in the following groups :-

A	32	lights each of	16	candle power requiring a total current of	29.5	Amperes
B	34	lights each of	16	candle power requiring a total current of	31.4	Amperes
C	13	lights each of	16	candle power requiring a total current of	15	Amperes
D	20	lights each of	16	candle power requiring a total current of	18.3	Amperes
E	20" Projector	lights each of	20,000	candle power requiring a total current of	60	Amperes
	2	Mast head light with 1 lamps each of	32	candle power requiring a total current of	3.7	Amperes
	2	Side light with 1 lamps each of	32	candle power requiring a total current of	3.7	Amperes
	4	Cargo lights of	6 - 16	candle power, whether incandescent or arc lights	Incandescent.	

If arc lights, what protection is provided against fire, sparks, &c. One - 15 amp arc lamp totally enclosed in hexagonal clear glass lantern.

Where are the switches controlling the masthead and side lights placed In chart house

DESCRIPTION OF CABLES.

Main cable carrying 140 Amperes, comprised of 37 wires, each 14 L.S.G. diameter, .1838 square inches total sectional area

Branch cables carrying 15 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .0222 square inches total sectional area

Branch cables carrying 31.4 Amperes, comprised of 7 wires, each 14 L.S.G. diameter, .0348 square inches total sectional area

Leads to lamps carrying .9 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area

Cargo light cables carrying 5.5 Amperes, comprised of 176 wires, each 38 L.S.G. diameter, .00507 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanized rubber, taped & braided lead covered overall and where exposed steel armoured over the lead covering.

Joints in cables, how made, insulated, and protected No joints, except mechanical ones.

Are all the joints of cables thoroughly soldered, resin only having been used as a flux Yes 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 Yes. no.

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 and secured by brass & W.I clips close up to the deck



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible No.

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Lead covered and steel-armoured.

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

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

What special protection has been provided for the cables in engine room _____

How are cables carried through beams in lead bushes through bulkheads, &c. in watertight glands.

How are cables carried through decks In galvanized iron 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 armoured and fixed close up to the deck

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 Portable How fixed Watertight C.T. box boxes.

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Double wire system

How are the returns from the lamps connected to the hull _____

Are all the joints with the hull in accessible positions _____

The installation is now supplied with a voltmeter and also an amperemeter, fixed Main Switchboard

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 _____

Are any switches, cut outs, 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 100 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 600 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.

For Clarke, Chapman & Co. Ltd

H Walker

Director

Electrical Engineers

Date Nov 17th /06.

COMPASSES.

Distance between dynamo or electric motors and standard compass 94 feet

Distance between dynamo or electric motors and steering compass 86 "

The nearest cables to the compasses are as follows:—

A cable carrying	<u>.9</u>	Amperes	<u>6</u>	feet from standard compass	<u>12</u>	feet from steering compass
A cable carrying	<u>.9</u>	Amperes	<u>12</u>	feet from standard compass	<u>6</u>	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 _____ course in the case of the standard compass and Nil degrees on _____ course in the case of the steering compass.

Geo Jones

Managing Director

Builder's Signature.

Date Nov 20/1906

GENERAL REMARKS.

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

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

Committee's Minute

It is submitted that the Record Elec. Light be noted in the Reg. Book.



Lloyd's Register Foundation

22.11.06

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 11-2m.34.