

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 11784

Port of WEST HARTLEPOOL Date of First Survey 4th March Date of Last Survey 10th March 1902 No. of Visits 4
 No. in 1 on the Steel S. J. Sloradyk Port belonging to Rotterdam
 Reg. Book 11784 Built at Hartlepool By whom Messrs. Furness Withy & Co. When built 1901-2
 Owners Holland American Line Owners Address Rotterdam
 Yard No. 260 Electric Light Installation fitted by Messrs. W. H. Allen Son & Co. Ltd. When fitted 1901-2

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Double acting vertical open type 8-6 Engine Coupled direct to inverted horse-shoe
 two pole dynamo, both of Messrs. W. H. Allen Son & Co. Ltd.

Capacity of Dynamo 150 Amperes at 60 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Starboard side of engine room, in recess under slope

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

Positions of auxiliary switch boards and numbers of switches on each one for cable lights containing 4 switches at top of engine room, on starboard side

If cut outs are fitted on main switch board to the cables of main circuit Yes and on each auxiliary switch boards 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

Are the cut outs of non-oxidizable metal Yes and constructed to fuse at an excess of 100 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 equivalent of 138 16 c.p. lamps arranged in the following groups:—

A	<u>34</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>34</u>	Amperes
B	<u>21</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>21</u>	Amperes
C	<u>52</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>52</u>	Amperes
D	<u>36</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>36</u>	Amperes
E		lights each of		candle power requiring a total current of		Amperes
<u>2</u>	Mast head light with	<u>1</u>	lamp each of	<u>32</u>	candle power requiring a total current of	<u>4</u> Amperes
<u>2</u>	Side light with	<u>1</u>	lamps each of	<u>32</u>	candle power requiring a total current of	<u>4</u> Amperes
<u>6</u>	Cargo lights of			<u>96</u>	candle power, whether incandescent or arc lights	<u>Incandescent</u>

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

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

DESCRIPTION OF CABLES.

Main cable carrying	<u>138</u>	Amperes, comprised of	<u>34</u>	wires, each	<u>15</u>	L.S.G. diameter,	<u>.148</u>	square inches total sectional area
Branch cables carrying	<u>34</u>	Amperes, comprised of	<u>19</u>	wires, each	<u>18</u>	L.S.G. diameter,	<u>.0351</u>	square inches total sectional area
Branch cables carrying	<u>21</u>	Amperes, comprised of	<u>4</u>	wires, each	<u>16</u>	L.S.G. diameter,	<u>.0229</u>	square inches total sectional area
Leads to lamps carrying	<u>163</u>	Amperes, comprised of	<u>1</u>	wires, each	<u>16</u>	L.S.G. diameter,	<u>.00322</u>	square inches total sectional area
Cargo light cables carrying	<u>6</u>	Amperes, comprised of	<u>34</u>	wires, each	<u>30</u>	L.S.G. diameter,	<u>.005</u>	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

600 megohm Vulcanized rubber cable, braided & armoured, or lead sheathed & armoured.

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

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

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 Cables protected by armour & clipped up to the deck, or in strong wood casing.

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible

Ys.

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

Galvanised iron pipes

Lead sheathed & armoured

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

Lead sheathed & armoured

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

Lead sheathed & armoured

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

Lead sheathed & armoured

How are cables carried through beams

In fibre ferrules

through bulkheads, &c.

In fibre ferrules

How are cables carried through decks

In Galvanised iron pipes projecting 12 to 18" and lead with fibre

Are any cables run through coal bunkers

No

or cargo spaces

Ys.

or spaces which may be used for carrying cargo, stores, or baggage

Ys.

If so, how are they protected

Armoured

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

Ys in cable space

If so, how are the lamp fittings and cable terminals specially protected

By enclosing in Cast iron fitting with hinged lid

Where are the main switches and cut outs for these lights fitted

Engine Room

If in the spaces, how are they specially protected

None in spaces

Are any switches or cut outs fitted in bunkers

No

Cargo light cables, whether portable or permanently fixed

Portable

How fixed

All double wire system

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

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 installation is

supplied with a voltmeter and

not with

an amperemeter, fixed

on Switchboard

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 W. H. ALLEN, SON & Co Ltd.
C. H. Hunt

Electrical Engineers

Date *26 March 02*

COMPASSES.

Distance between dynamo or electric motors and standard compass

11 8 feet

Distance between dynamo or electric motors and steering compass

11 2

The nearest cables to the compasses are as follows:—

All double wire

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>34</i>	<i>16</i>	<i>9</i>	<i>9</i>
<i>6</i>	<i>19</i>	<i>14</i>	<i>14</i>
<i>9</i>	<i>19</i>	<i>14</i>	<i>14</i>

Have the compasses been adjusted with and without the electric installation at work at full power *Not Considered necessary.*

The maximum deviation due to electric currents, etc., was found to be

0

degrees on

course in the case of the

standard compass and

0

degrees on

course in the case of the steering compass.

FURNESS, WITBY & CO., LIMITED.

per Jackson

Builder's Signature

Date

April 4th 02

GENERAL REMARKS.

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

Allison B. Wilson

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

Committee's Minute

It is submitted that this installation appears to meet the Rule requirements.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.