

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 21421

Port of Hull Date of First Survey Jun 30/09 Date of Last Survey Jul 20th No. of Visits 12
 No. in 14 on the Iron or Steel Twin S. St. Macquarie Port belonging to Sydney N.S.W.
 Reg. Book 14 Built at Hull By whom Earles & Co. Ltd When built 1909
 Owners N. Camm Coastal Corp. S. S. Co. Ltd Owners' Address Sydney N.S.W.
 Yard No. 551 Electric Light Installation fitted by The Sunderland Forge & Eng. Co. Ltd When fitted 1909

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Multipolar compound wound dynamo direct coupled to open type
inverted Engine both by the Sunderland Forge & Eng. Co. Ltd.

Capacity of Dynamo 55 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Bottom of Engine Room S. Side Whether single or double wire system is used double

Position of Main Switch Board Close to Dynamo having switches to groups three of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each

none fitted

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 100 per cent over the normal current

Are all cut outs fitted in easily accessible positions yes Are the fuses of standard dimensions no 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 84 arranged in the following groups:—

A	<u>29</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>16.24</u>	Amperes
B	<u>39</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>21.84</u>	Amperes
C	<u>19</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>10.64</u>	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
—	<u>Mast head light with</u>	<u>—</u> lamps each of	<u>—</u>	candle power requiring a total current of	<u>—</u>	Amperes
—	<u>Side light with</u>	<u>—</u> lamps each of	<u>—</u>	candle power requiring a total current of	<u>—</u>	Amperes
<u>2</u>	<u>Cargo lights of</u>	<u>6 x 16</u>		candle power, whether incandescent or arc lights	<u>incandescent</u>	

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

none fitted.

Where are the switches controlling the masthead and side lights placed

DESCRIPTION OF CABLES.

Main cable carrying	<u>55</u> Amperes, comprised of	<u>19</u> wires, each	<u>14</u> L.S.G. diameter,	<u>.0956</u> square inches total sectional area
Branch cables carrying	<u>21.24</u> Amperes, comprised of	<u>7</u> wires, each	<u>16</u> L.S.G. diameter,	<u>.0225</u> square inches total sectional area
Branch cables carrying	<u>16.84</u> Amperes, comprised of	<u>7</u> wires, each	<u>14</u> L.S.G. diameter,	<u>.0142</u> square inches total sectional area
"	<u>10.68</u> " " " " " "	<u>4</u> " " " "	<u>18</u> " " " "	<u>.0124</u> " " " "
Leads to lamps carrying	<u>1.12</u> Amperes, comprised of	<u>1</u> wires, each	<u>18</u> L.S.G. diameter,	<u>.00181</u> square inches total sectional area
Cargo light cables carrying	<u>3.36</u> Amperes, comprised of	<u>1</u> wires, each	<u>16</u> L.S.G. diameter,	<u>.00323</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

In Berths, Saloon etc Pure Rubber, vulcanised rubber, taped
and lead covered Engine Room Stokerhole etc Lead
covered and armoured

Joints in cables, how made, insulated, and protected

There are none.

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 and armoured

Cables led through holds in heel of a fore & aft Angle Bar

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 and armoured.

Lead covered and

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

holes bushed with Fibre through bulkheads, &c.

Watertight Glands

How are cables carried through decks

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.

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

yes.

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

By special cast iron fittings

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

Switches alongside lights, cutouts

If in the spaces, how are they specially protected

in engine room quarters

Are any switches or cut outs fitted in bunkers

no.

Cargo light cables, whether portable or permanently fixed

portable

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

yes

supplied with a voltmeter and

no

an amperemeter, fixed on

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

99

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.

P. and THE HENDERLAND FORGE & ENGINEERING CO. LTD.

Myrm Man

Electrical Engineers

Date

31/7/09

COMPASSES:

Distance between dynamo or electric motors and standard compass

36 feet approx.

Distance between dynamo or electric motors and steering compass

32 feet do.

The nearest cables to the compasses are as follows:—

A cable carrying

2.24

Amperes

6

feet from standard compass

14

feet from steering compass

A cable carrying

.56

Amperes

led into

feet from standard compass

14

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

degrees on

course in the case of the steering compass.

Builder's Signature.

Date

GENERAL REMARKS.

This vessel has been fitted with an Electric Light Installation as above, tested and found in order, and is eligible in my opinion to have the same noted in Register B & R

It is submitted the notation of the light be entered to the vessel

James Barclay

Surveyor to Lloyd's Register of British and Foreign Shipping

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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