

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 28212

Port of Sunderland. Date of First Survey Aug 9 Date of Last Survey Dec 5 '21 No. of Visits 6
 No. in Reg. Book 29364 on the Iron Steel S.S. "S.N.A.6" Port belonging to Havre, France
 Built at Sunderland By whom Casbourne Graham & Co. Ltd When built 1921
 Owners Soc. Nationale d'Affrètements Owners' Address 29 Quai George V. Havre, France
 Yard No. 244 Electric Light Installation fitted by Jas. Holmes & Co., Newcastle When fitted 1921

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One single crank forced lubrication engine by Bumstead & Chandler Ltd, coupled direct to one open, compound wound dynamo by Jas. Holmes & Co.

Capacity of Dynamo 90 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Engine Room 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 9 way 5 amp box in Chart Rm, 4 way 5 amp box in Eng's Pass, Star, 4 way 5 amp box in Paint Rm, forward, 6 way 5 amp box in Officer's Mess, 5 way 5 amp box in Eng's Pass, 3 way 5 amp box in Eng's Pass, 5 way 5 amp box in Passage Aft, 3 way 5 amp box in Eng's Passage, 2 way 5 amp box in Officer's Mess, 8 way 5 amp box in Eng. Rm.

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 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 105-16 CP. (including 40 arranged in the following groups:—

A	{ 8 lights each of 32	candle power requiring a total current of	approx. 15.12	Amperes
B	{ 11 " " " 16	" " " " " "	"	"
C	{ 7 " " " 32	" " " " " "	"	"
C	4 Plugs for Cargo lights each of 16	candle power requiring a total current of	"	"
D	33 lights each of 16	candle power requiring a total current of	18.48	Amperes
E	Marconi mains lights each of	candle power requiring a total current of	"	"
	2 Mast head lights, with 1 lamp each of 32	candle power requiring a total current of	2.24	Amperes
	2 Side lights, with 1 lamp each of 32	candle power requiring a total current of	2.24	Amperes

Included above

4 Plugs only for Cargo lights of Cargo Blusters 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 in Chart Rm.

DESCRIPTION OF CABLES.

Main cable carrying 90 Amperes, comprised of 19 wires, each .083 L.S.G. diameter, .100 square inches total sectional area
 Branch cables carrying 15.12 Amperes, comprised of 7 wires, each .044 L.S.G. diameter, .010 square inches total sectional area
 Branch cables carrying 27.6 Amperes, comprised of 7 wires, each .064 L.S.G. diameter, .022 square inches total sectional area
 Leads to lamps carrying .56 Amperes, comprised of 1 wires, each .044 L.S.G. diameter, .0015 square inches total sectional area
 Cargo light cables carrying 6.72 Amperes, comprised of 7 wires, each .029 L.S.G. diameter, .004 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Conductors of high conductivity copper wire, insulated with Pure & Vulcanized India Rubber, taped, armoured with galv. steel wires, taped, braided & confounded overall.

Joints in cables, how made, insulated, and protected None, looping-in system carried out

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 In cabins, Saloon &c, lead covered clipped up; Cargo Spaces, & Engine & Boiler Rms, Armoured & Braided.

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 *Armoured & Braided.*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Armoured & Braided.*

What special protection has been provided for the cables near boiler casings *Armoured & Braided.*

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

How are cables carried through beams *bushed with fibre* through bulkheads, &c. *Staffing Glands.*

How are cables carried through decks *in lead or iron deck tubes, flanged & made watertight.*

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 *Armoured & Braided.*

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 *socket connection*

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 supplied with a voltmeter and 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 *✓*

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.

COMPASSES.

Distance between dynamo or electric motors and standard compass

approx. 64 ft.

Distance between dynamo or electric motors and steering compass

" 56 ft.

The nearest cables to the compasses are as follows:—

A cable carrying *.56* Amperes *inside* feet from standard compass *inside* feet from steering compass

A cable carrying *approx 15.42* Amperes *approx 14* feet from standard compass *approx. 8* feet from steering compass

A cable carrying *" 3.8* Amperes *" 20* feet from standard compass *" 15* 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 *any* course in the case of the standard compass and *Nil* degrees on *any* course in the case of the steering compass.

OSBOURNE GRAY & CO., LIMITED

Builder's Signature. Date *5/12/21*

GENERAL REMARKS.

The installation has been satisfactorily fitted in the vessel, tested and found good.

Fee £9.0.0

*Applied for 2/12/21
Paid 5/12/21*

Elec. Light.

L. J. 20/12/21.

S. C. Davis.

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

Committee's Minute



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