

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 425

Port of *Seattle Wash.* Date of First Survey *July 16/18* Date of Last Survey *Sept 27/18* No. of Visits *8*  
 No. in Reg. Book *on the Iron or Steel Wood Twin Screw M.S. Challenger* Port belonging to *Melbourns*  
 Built at *Olympia Washington* By whom *Steam Shipyard Corporation* When built *1915*  
 Owners *Commonwealth Government* Owners' Address *Australian House Strand London*  
 Yard No. *Electric Light Installation fitted by Steam Shipyard Corporation* When fitted *1915*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

*1* Dynamo *8 K.W. M.P. Compound wound* *Wired Connected to a 7" x 6 Engbuco Vertical Engine Type M.P. 6*  
 Capacity of Dynamo *40* Amperes at *110* Volts, whether continuous or alternating current *Direct Current*  
 Where is Dynamo fixed *Port Side of Engine room* Whether single or double wire system is used *Double*  
 Position of Main Switch Board *Port Side Engine room* having switches to groups *A B C D E F G 7* circuit of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each *2 Panel board of 4 switches each in Officer's quarters port side Windlass room 4 switches Tank room 4 switches Forecastle 3 Junction boxes fixed*  
 \* If fuses 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 fuses fitted to both flow and return wires or cables of all circuits including lamp circuits *Yes*  
 Are the fuses of non-oxidizable metal *Yes* and constructed to fuse at an excess of *25%* per cent over the normal current  
 Are all fuses 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 fuses constructed of incombustible materials and fitted on incombustible bases *Yes*  
 Total number of lights provided for *230* arranged in the following groups:—*A B C D E F G*  

|  |  |                     |         |
|--|--|---------------------|---------|
| <i>A</i> Midship house <i>38</i> lights each of <i>25</i> Watts      | candle power requiring a total current of        | <i>8.7</i>          | Amperes |
| <i>B</i> Tank room <i>41</i> lights each of <i>25</i> Watts          | candle power requiring a total current of        | <i>9.31</i>         | Amperes |
| <i>C</i> Prop Room <i>55</i> lights each of <i>25</i> Watts          | candle power requiring a total current of        | <i>12.5</i>         | Amperes |
| <i>D</i> Bridge deck <i>62</i> lights each of <i>25</i> "            | candle power requiring a total current of        | <i>15.0</i>         | Amperes |
| <i>E</i> Forecastle <i>29</i> lights each of <i>25</i> "             | candle power requiring a total current of        | <i>6.5</i>          | Amperes |
| <i>2</i> Mast head light with <i>1</i> lamps each of <i>25</i> Watts | candle power requiring a total current of        | <i>25</i>           | Amperes |
| <i>2</i> Side light with <i>1</i> lamps each of <i>25</i> "          | candle power requiring a total current of        | <i>25</i>           | Amperes |
| <i>12</i> Cargo lights of <i>5</i> - <i>25</i> watt lamp             | candle power, whether incandescent or arc lights | <i>Incandescent</i> |         |

 If arc lights, what protection is provided against fire, sparks, &c. *None used*

Where are the switches controlling the masthead and side lights placed *Located in wheel house*

## DESCRIPTION OF CABLES.

Main cable carrying *75* Amperes, comprised of *7* wires, each *.0973* S.W.G. diameter, *52.128* square inches total sectional area  
 Branch cables carrying *None* Amperes, comprised of *None* wires, each *None* S.W.G. diameter, *None* square inches total sectional area  
 Branch cables carrying *None* Amperes, comprised of *None* wires, each *None* S.W.G. diameter, *None* square inches total sectional area  
 Leads to lamps carrying *6* Amperes, comprised of *1* wires, each *.064* S.W.G. diameter, *3.2258* square inches total sectional area  
 Cargo light cables carrying *5* Amperes, comprised of *1* wires, each *.064* S.W.G. diameter, *3.2258* square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

*Double braid rubber insulation run in metal Conduit*  
 Joints in cables, how made, insulated, and protected *Soldered Taped and painted with P & B Electric paint*  
 Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances *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 *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 *Galvanised iron Conduit*



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