

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 534

Port of Seattle Wash. Date of First Survey May 17 Date of Last Survey Sept. 21 No. of Visits 3
 No. in on the Wood Aux. T.S. Sek. H.C. HANSEN Port belonging to Porsgrund, Norway
 Reg. Book 31 Built at Tacoma, Wash. By whom Seaborn Shipbuilding Co. When built 1917
 Owners Capt. H.C. Hansen Owners' Address Porsgrund, Norway
 Yard No. 31 Electric Light Installation fitted by Builders When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

7 1/2 KW belt driven by a 20 HP Semi-Diesel Engine. Edison storage batteries.

Capacity of Dynamo 60 Amperes at 110 Volts, whether continuous or alternating current DCV

Where is Dynamo fixed Engine Room Whether single or double wire system is used Double

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

Positions of auxiliary switch boards and numbers of switches on each Engine Room for Auxiliary pump 1 switch, Forecastle for side and mast head lights & switches.

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

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 —

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 66 arranged in the following groups:—

A	14	lights each of	15 Watts	candle power requiring a total current of	2	Amperes
B	10	lights each of	15 Watts	candle power requiring a total current of	1.5	Amperes
C	14	lights each of	15 Watts	candle power requiring a total current of	2	Amperes
D	7	lights each of	15 Watts	candle power requiring a total current of	1	Amperes
E	4	lights each of	15 Watts	candle power requiring a total current of	.5	Amperes
F	10	lights each of	25 Watts	candle power requiring a total current of	1.5	Amperes
	1	Mast head light with 1 lamps each of	25 Watts	candle power requiring a total current of	.2	Amperes
	2	Side light with 1 lamps each of	25 Watts	candle power requiring a total current of	.5	Amperes
		Cargo lights of		candle power, whether incandescent or arc lights		

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

Where are the switches controlling the masthead and side lights placed

DESCRIPTION OF CABLES.

Main cable carrying	50	Amperes, comprised of	7	wires, each #	12	B.S.G. diameter,	45.317	square inches total sectional area
Branch cables carrying	6	Amperes, comprised of	12	wires, each #	2	S.W.G. diameter,		square inches total sectional area
Branch cables carrying	2	Amperes, comprised of	12	wires, each #	2	S.W.G. diameter,		square inches total sectional area
Leads to lamps carrying	9	Amperes, comprised of	6	wires, each #	12	S.W.G. diameter,	78.670	square inches total sectional area
Cargo light cables carrying	—	Amperes, comprised of	—	wires, each	—	S.W.G. diameter,		square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Rubber and double braided

Joints in cables, how made, insulated, and protected Soldered, rubber and friction tape

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 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 Metal Conduits

Required by Rules
31.831
1909
31.83



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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 Metal Conduits

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

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

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

How are cables carried through beams No through bulkheads, &c. Conduits

How are cables carried through decks Water tight Conduits

Are any cables run through coal bunkers — or cargo spaces — or spaces which may be used for carrying cargo, stores, or baggage yes

If so, how are they protected Metal Conduits

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

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

Where are the main switches and fuses for these lights fitted —

If in the spaces, how are they specially protected —

Are any switches or fuses fitted in bunkers —

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 —

Is the installation supplied with a voltmeter yes, and with an amperemeter yes, fixed Switchboard

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas —

Are any switches, fuses, 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 not less than that of the Engineering Standards Committee's standard and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than RE standard megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

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.

Deubom Shipyard Co. Electrical Engineers Date Sept 11-1911

COMPASSES.

Distance between dynamo or electric motors and standard compass about 50 feet

Distance between dynamo or electric motors and steering compass —

The nearest cables to the compasses are as follows:—

A cable carrying	1	Ampere	beside	feet from standard compass	—	feet from steering compass
A cable carrying	2	Ampere	3	feet from standard compass	—	feet from steering compass
A cable carrying	2	Ampere	4	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 Various course in the case of —

Standard compass and — degrees on — course in the case of the steering compass.

Deubom Shipyard Co. Builder's Signature. Date Sept 11-1911

GENERAL REMARKS.

The electric lighting installation of good quality and workmanship tested under working conditions and found satisfactory. Eligible in my opinion to be noted Electric Light in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. Elec. light. W.D. G.M. 20/12/17. James Fowler Surveyor to Lloyd's Register of Shipping.

Committee's Minute Elec. light



Certificate (if required) to be sent to

No. in Reg. Book. ENTRY on aster J engines ma key oilers ma registered I MULTIT after for illers of Cert ety valve e they fit allest di terial of escrip. of ap of pla des iler escription ates: Ma op allest pa tch of sta eo, suppo noer back tch of tu ter space der at co orking p arately es de at rking p of safet or the do ngth 60 h's leath of pla nus of d chness of tes 7/16 TH