





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 *steel conduit made tight*

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

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

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

How are cables carried through beams *steel conduit* through bulkheads, &c. *steel conduit made tight*

How are cables carried through decks *steel conduit made tight*

Are any cables run through coal bunkers *no* or cargo spaces *no* or spaces which may be used for carrying cargo, stores, or baggage *yes*

If so, how are they protected *steel conduit run high up under deck*

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

If so, how are the lamp fittings and cable terminals specially protected *Strong watertight fittings, with heavy glass globes & forecloses*

Where are the main switches and fuses for these lights fitted *engine room & forecloses*

If in the spaces, how are they specially protected *no*

Are any switches or fuses fitted in bunkers *no*

Cargo light cables, whether portable or permanently fixed *portable* How fixed *Attachment plugs provided*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *no*

How are the returns from the lamps connected to the hull *no*

Are all the joints with the hull in accessible positions *yes*

Is the installation supplied with a voltmeter *yes*, and with an amperemeter *yes with 2*, fixed on main switch *yes*

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 *yes*

Are any switches, fuses, or joints of cables fitted in the pump room or companion *no*

How are the lamps specially protected in places liable to the accumulation of vapour or gas *Heavy gas tight glass globes with wire guards*

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 *600* 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.

BETHLEHEM SHIPBUILDING CORPORATION LTD.  
FORE RIVER PLANT

Electrical Engineers Date 8 Dec 1920

COMPASSES. GEN'L MANAGER

Distance between dynamo or electric motors and standard compass *about 200 ft*

Distance between dynamo or electric motors and steering compass *about 200 ft*

The nearest cables to the compasses are as follows:—

A cable carrying *Binnacle* *4* Amperes *close to* feet from standard compass *close to* feet from steering compass

A cable carrying *Navigation light* *4* Amperes *about 8* feet from standard compass *about 8* feet from steering compass

A cable carrying *Search light* *35* Amperes *" 8* feet from standard compass *" 8* 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 *no* degrees on *no* course in the case of the steering compass.

standard compass and *no* degrees on *no* course in the case of the steering compass.  
BETHLEHEM SHIPBUILDING CORPORATION LTD.  
FORE RIVER PLANT

Builder's Signature. Date 8 December 1920

GENERAL REMARKS. *This Electric Light Installation has been fitted under Special Survey in accordance with the Rules & the workmanship & material are good. It has been satisfactorily tried under full load & it is now in good & safe working condition & eligible in my opinion to receive the notation ELEC. LIGHT in the Register Book.*

*this vessel is eligible for THE RECORD. Elec Light Recd 6/1/21*

Committee's Minute *New York DEC 14 1920*  
*Elec. Lt.*

Boston

Continuation of Report No. 1427 dated 3rd Dec 1920 on the

*S/S Japan Arrow of New York.*

*Electric Lighting Installation*

*ups of lights continued*

*Searchlight* requiring a total current of *35 amperes*

*Navigation light* 72 lights each of 20 cp requiring a total current of *22.5 amperes*

*Engine Room* 36 " " 20 " " " " *10.2*

*Boiler Room* 18 " " 20 " " " " *8.6*

*Wireless* " " " " " " *40*

*Workshop* " " " " " " *60*

*Description of Cables continued*

*carrying 32 amperes composed of 61 wires each .04" dia .078" total sectional area*

9.3	"	19	"	.045	.031	"	"
11.6	"	7	"	.050	.014	"	"
4.5	"	7	"	.050	.014	"	"
35	"	19	"	.045	.031	"	"
22.5	"	7	"	.057	.018	"	"
10.2	"	7	"	.04	.008	"	"
8.6	"	7	"	.04	.008	"	"
40	"	19	"	.04	.023	"	"
60	"	19	"	.045	.031	"	"

*J. S. H.*

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