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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 256

ort of CLEVELAND, OHIO. Date of First Survey 26/4/20 Date of Last Survey 11/5/20. No. of Visits 6

o. in Book on the Iron or Steel S/S "BACCARAT" Port belonging to Wilmington Del Cleveland Ohio

Built at Cleveland Ohio By whom American Shipbuilding Co When built 1920

ners American Shipbuilding Coy. Owners' Address Cleveland Ohio

d No. 493. Electric Light Installation fitted by American Shipbuilding Coy. When fitted 1920.

SCRIPTION OF DYNAMO, ENGINE, ETC.

One 6 pole dynamo direct connected to reciprocating engine R.P.M. 450. (No 3759).

pacity of Dynamo 90 Amperes at 110 Volts, whether continuous or alternating current Continuous

here is Dynamo fixed Engine Room Bottom Platform Whether single or double wire system is used

sition of Main Switch Board Engine Room Bottom Platform having switches to groups ✓ of lights, &c., as below

sitions of auxiliary switch boards and numbers of switches on each Two on Bridge Deck, one in Poop Spaces. 5 circuits each.

G.

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 no ✓

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

re the fuses of non-oxidizable metal yes. ✓ and constructed to fuse at an excess of 50 per cent over the normal current

re 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 no ✓.

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

tal number of lights provided for 154 arranged in the following groups :—

Bridge Spaces. 55 lights each of 25 to 40 Watts candle power requiring a total current of 14·5 Amperes

Machinery " 50 lights each of " " candle power requiring a total current of 17·2 Amperes

Forecastle " 16 lights each of " " candle power requiring a total current of 4·2 Amperes

Poop " 28 lights each of " " candle power requiring a total current of 7·0 Amperes

Portable lights 16 lights each of 50 Watts. candle power requiring a total current of 8·7 Amperes

2 Mast head light with 2 lamps each of 120 Watts candle power requiring a total current of 2·2 Amperes

2 Side light with 2 lamps each of " " candle power requiring a total current of 2·2 Amperes

Above Cargo lights of As stated candle power, whether incandescent or arc lights Incandescent

arc lights, what protection is provided against fire, sparks, &c. None used for cargo. Wireless fitted to independent circuit.

here are the switches controlling the masthead and side lights placed Pilot House

SCRIPTION OF CABLES.

Capacity
in cable carrying 110 Amperes, comprised of 19 wires, each 13 B.S. S.W.G. diameter, 98496 circ. mils square inches total sectional area

anch cables carrying 45 Amperes, comprised of 11 wires, each 14 S.W.G. diameter, 45045 square inches total sectional area

anch cables carrying 21 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, 11620 square inches total sectional area

ads to lamps carrying 5 Amperes comprised of 1 wires, each 14 S.W.G. diameter, 4095 square inches total sectional area

Flat.
rgo light cables carrying 16 Amperes, comprised of 17 wires, each 28 S.W.G. diameter, 3256 square inches total sectional area

SCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanized rubber double braided to specifications & tests of National Board of Fire underwriters.

nts in cables, how made, insulated, and protected Soldered rubbered & taped.

e 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.

there any joints in or branches from the cable leading from dynamo to main switch board no.

w are the cables led through the ship, and how protected Steel conduit where exposed, wood moulding in Cabins.

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 Conduits

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

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

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

How are cables carried through beams Steel conduits *through bulkheads, &c.* W.T. fittings

How are cables carried through decks W.T. fittings

Are any cables run through ~~coal bunkers~~ Bridge Spaces yes. *or cargo spaces* yes *or spaces which may be used for carrying cargo, stores, or baggage* yes.

If so, how are they protected Steel conduits run through deck beams or clipped thereto.

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 fuses for these lights fitted ✓

If in the spaces, how are they specially protected ✓

Are any switches or fuses fitted in bunkers no.

Cargo light cables, whether portable or permanently fixed Portable *How fixed* Plug boxes.

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* Engine Room

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 600. megohms per statute mile at 60° Farhenheit 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.

The American Ship Bldg Co. *Electrical Engineers* *Date*

COMPASSES.

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

Distance between dynamo or electric motors and steering compass about 53 feet.

The nearest cables to the compasses are as follows:—

A cable carrying 25 *Amperes* 5' *feet from standard compass* 5' *feet from steering compass*

A cable carrying ✓ *Amperes* ✓ *feet from standard compass* ✓ *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 not yet adjusted

The maximum deviation due to electric currents, etc., was found to be ✓ *degrees on* ✓ *course in the case of the standard compass and* ✓ *degrees on* ✓ *course in the case of the steering compass.*

The American Ship Bldg Co. *Builder's Signature.* *Date*

GENERAL REMARKS.

The above installation has been fitted in a satisfactory manner. The materials & workmanship employed therein so far as can be seen are sound & good

Elec Lt. RCM. 3/10/20.

J G Drummond.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute Elec Lt New York SEP 14 1920

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

50,118.—Transfer.