

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 28452

Port of New York Date of First Survey 1st Dec. Date of Last Survey 29th Dec. '27 No. of Visits 7
 No. in Reg. Book 25210 on the Iron or Steel 5/8 J.A. MOFFETT JR. Port belonging to New York Wilmington, Del.
 Built at Kearny N.J. By whom Federal S. B. Co. When built 1921
 Owners Standard Shipping Co. Owners' Address Todd S. B. Corpⁿ
 Yard No. 50 Electric Light Installation fitted by Tietgen & Lang Plant When fitted 1927

DESCRIPTION OF DYNAMO, ENGINE, ETC. One 100 KW generator, Two 50 KW generators direct driven by Diesel engines. One Steam driven generator (old) 20 KW. Two motor generators, 1 @ 20 KW & 1 @ 15 KW

Capacity of Dynamo 100 KW 435 Amperes at 230 Volts, whether continuous or alternating current continuous
50 217 230
20 182 110
 Where is Dynamo fixed Eng. Room Whether single or double wire system is used double
 Position of Main Switch Board Eng. Room. having switches to groups as per following sheet herewith of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each as original

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 - and to each lamp circuit -

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 less than 100 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 as original. arranged in the following groups :-

A	lights each of	candle power requiring a total current of	Amperes	
B	lights each of	candle power requiring a total current of	Amperes	
C	lights each of	candle power requiring a total current of	Amperes	
D	lights each of	candle power requiring a total current of	Amperes	
E	lights each of	candle power requiring a total current of	Amperes	
	Mast head light with	lamps each of	candle power requiring a total current of	Amperes
	Side light with	lamps each of	candle power requiring a total current of	Amperes
	Cargo lights of		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 Pilot house.

DESCRIPTION OF CABLES. For description, please see following sheet.

Main cable carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Branch cables carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Branch cables carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Leads to lamps carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	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.

Braided fibre, + rubber insulation, carried in steel conduit throughout

Joints in cables, how made, insulated, and protected Made in metal junction boxes throughout

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 steel conduits



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New York

M/V J. A. MOFFETT JR.

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 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, etc. steel conduits made tight*

How are cables carried through decks *steel conduits 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 conduits*

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 *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 with 4* and with an amperemeter *yes with 4* fixed *on main board*

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

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 _____ 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.

Tietjen and Lang Dry Dock Co.

George Raymond Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying _____ Amperes	_____ feet from standard compass	_____ 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 *yes.*

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.

Builder's Signature. Date

GENERAL REMARKS. This Electrical Installation has been fitted in accordance with the Rules, & the workmanship & material are good. It has been satisfactorily tried at full load & it is now in good & safe working condition & eligible, in our opinion, to have the notation 'ELEC. LIGHT' continued in the Register Book.

It is submitted that this vessel is eligible to remain as CLASSED.

John S. Heck.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

NEW YORK JAN 11 1928

"Elec. Light"

Electric Installation fitted in connection with conversion to Diesel Engines

The original Electric Light Installation has been retained practically as before, arrangements in Engine Room only being altered to conform to new conditions.

One old steam driven 20 KW generator has been left on board for emergency use.

Two motor generators receiving at 230 volts are used for supplying current to Electric Light Installation at 110 Volts.

Power Installation

There are 1-100 KW generator, & 2-50 KW generators. These are fixed on level of Eng room Floor, & are direct driven by the Auxiliary Diesel Engines. They supply current to the Power Circuits at 230 volts.

Main Cable 100 KW machine to switchboard carrying 435 amps composed of 2 cables of 37 wires each .1162" dia = .470 sq sectional area

(2) 50 KW machines carrying 217 amps comprised of 37 wires each .1162" = .235 sq sectional area

20 KW machine (old) as before.

20 KW motor generator carrying 87 amps comprised of 19 wires each .105" dia = .170 sq

15 KW motor generator carrying 68 amps comprised of 19 wires each .083" dia = .105 sq

Power Circuits from Main Switchboard

Fire & Sea Service Pump requiring 150 amperes comprised of 19 wires each .083" dia	.105" sectional area
Donkey Boiler Pump N1	100 " " " 19 " " .083 105
" " " N2	100 " " " 19 " " .083 105
Salt Water Circ. Pump	60 " " " 7 " " .077 .034
" " " "	60 " " " 7 " " .077 .034
Emergency Bilge Pump	34 " " " 7 " " .061 .022
Bilge Pump	34 " " " " " " " " "
Fuel Oil Transfer Pump	34 " " " " " " " " "
" " " "	34 " " " " " " " " "
Lubricating Oil "	34 " " " " " " " " "
Dry Bl. Fuel Oil "	34 " " " " " " " " "
Heating Bl. " " "	20 " " " " " " " " "
" " Feed Pump	" " " " " " " " "
Forced Draught Blower	7 " " " " " " " " "
Sub. Oil Separator	10 " " " " " " " " "
Fuel " "	10 " " " " " " " " "
Workshop	20 " " " " " " " " "
Ice Machine	20 " " " " " " " " "
Steering Gear	80 " " " 19 " " .074 .063

Port of *New York*

Continuation of Report No. *18457* dated *6th Jan'y. 28* on the

M/V J. A. MOFFETT JR.

Description of Power Cables continued

<i>Turning Gear Port</i>	<i>carrying 60amps</i>	<i>comprised of 7wires each .077dia</i>	<i>.0340" sectional area</i>
<i>" " Start</i>	<i>"</i>	<i>"</i>	<i>"</i>
<i>Galley</i>	<i>205</i>	<i>" 37</i>	<i>.116 .235</i>

J.S.H.

