

REC'D NEW YORK AUG -6 1921

MON. AUG. 22 1921

Rpt. 13.

Received at London Office

19

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3575

Port of SAN FRANCISCO, CAL. Date of First Survey 24<sup>th</sup> MAY 1921 Date of Last Survey 8<sup>th</sup> JULY 1921 No. of Visits 7  
 No. in on the Iron or Steel S/S SCOPAS Port belonging to GRAVENHAGE  
 Reg. Book Built at SAN PEDRO, CAL. By whom SOUTHWESTERN S.B. CO When built 1921  
 Owners NEEDERLANDSCH-INDISCHE TANK STOOMBOOTMAATSCHAPPIJ Owners' Address  
 Yard No. 24 Electric Light Installation fitted by SOUTHWESTERN S.B. CO When fitted 1921

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

ONE - 12 K.W. G.E. Co. 6. POLE 4 1/2 R.P.M. COMPOUND.  
ENGINE 6 1/2 "x 5"ONE. AUX. - 1/2 K.W. G.E. Co. 6. POLE 550 R.P.M. COMPOUND.  
ENGINE. 5 1/2 "x 4"Capacity of Dynamo 109 H.P. 68 Amperes at 110 Volts, whether continuous or alternating current DIRECTWhere is Dynamo fixed Dynamo flat in Engine Room Whether single or double wire system is used DoublePosition of Main Switch Board Dynamo flat having switches to groups A, B, C and D of lights, &c., as belowPositions of auxiliary switch boards and numbers of switches on each Pilot house. 5 switches for Midships and Forecastle  
Dynamo flat; switches for Engine Room and Boiler Room. Top of Engine Room three with  
switches for After quarters.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 YesIf 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 YesAre the fuses of non-oxidizable metal Yes and constructed to fuse at an excess of 25 per cent over the normal currentAre 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 StandardAre all switches and fuses constructed of incombustible materials and fitted on incombustible bases YesTotal number of lights provided for About 200 arranged in the following groups:—FORECASTLE 23 lights each of 25 WATTS candle power requiring a total current of 19.80 AmperesA MIDSHIPS 44 lights each of 30 " candle power requiring a total current of 2.43 AmperesB END B. SPACE 52 lights each of 50 WATTS candle power requiring a total current of 23.40 AmperesC AFTER QTRS 42 lights each of 50 " candle power requiring a total current of 18.90 AmperesD CARGO 20 lights each of 50 " candle power requiring a total current of 10.00 Amperes

E lights each of candle power requiring a total current of Amperes

2 Mast head lights with 1 lamps each of 32 candle power requiring a total current of 0.9 Amperes2 Side light with 1 lamps each of 32 candle power requiring a total current of 0.9 Amperes4 Cargo lights of 96 candle power, whether incandescent or arc lights IncandescentIf arc lights, what protection is provided against fire, sparks, &c. ✓Where are the switches controlling the masthead and side lights placed Wheel house

## DESCRIPTION OF CABLES.

Main cable carrying 24 Amperes, comprised of 2 wires, each 0.162 S.W.G. diameter, .0412 square inches total sectional areaBranch cables carrying 10 Amperes, comprised of 2 wires, each 0.128 S.W.G. diameter, .0255 square inches total sectional areaBranch cables carrying 9 Amperes, comprised of 2 wires, each 0.102 S.W.G. diameter, .0162 square inches total sectional areaLeads to lamps carrying 2 Amperes, comprised of 2 wires, each 0.051 S.W.G. diameter, .002 square inches total sectional areaCargo light cables carrying 6 Amperes, comprised of 2 wires, each 0.0808 S.W.G. diameter, .005 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wire used is standard single conductor and lead covered, and where  
 exposed run in conduitJoints in cables, how made, insulated, and protected All joints spliced and soldered, taped first with rubber, then  
covered with friction tape, and given a heavy coating of insulating compound. All joints in  
water tight junction boxes.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 YesAre there any joints in or branches from the cable leading from dynamo to main switch board NoHow are the cables led through the ship, and how protected Lead covered cable in conduit

© 2021

Lloyd's Register  
 Foundation



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 *W.T. Conduit*

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 *Conduit* through bulkheads, &c. *Conduit with Stuffing Boxes*

How are cables carried through decks *Conduit with Brass deck tubes*

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 *Permanent* How fixed *W.T. Steel Conduits and fittings*

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 on *Main 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 *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 *Vapour proof fittings*

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.

*W. H. Smith & Co. Shipbuilding Co.* Electrical Engineers Date *July 30th 1921*

COMPASSES.

Distance between dynamo or electric motors and standard compass *about 260 feet*

Distance between dynamo or electric motors and steering compass *250 feet*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
25	1		

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 *True* course in the case of the standard compass and *Nil* degrees on *True* course in the case of the steering compass.

*W. H. Smith & Co. Shipbuilding Co.* Surveyor's Signature. Date *July 30th 1921*

GENERAL REMARKS.

*This installation has been fitted in accordance with the Rules, tested under working conditions and found in order, and the vessel is eligible in my opinion to have the notation "Electric Light" in the Register Book.*

FEE *\$172.50* Applied for July 30th, 1921.

*It is submitted that this vessel is eligible for THE REGD. Elec Light Not. 7/30/21*

*W. H. Smith* Surveyor to Lloyd's Register of Shipping.

Committee's Minute *New York AUG - 9 1921* TUE NOV. 9 1921

*Elect light*



© 2021

Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.