

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 12589

Port of Rotterdam Date of First Survey 1-6-22 Date of Last Survey 19-10-22 No. of Visits 9
 No. in Reg. Book on the Iron or Steel 5/5 "GAASTERDIJK" Port belonging to Rotterdam
 Built at Schiedam By whom New Waterway Trust Co When built 1922
 Owners Holland Amerika Lijn. Owners' Address Rotterdam.
 Yard No. 163 Electric Light Installation fitted by Peetschoten & Bouwers When fitted 1922.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Also steam dynamo's, consisting of double acting steam engines, direct coupled to compound wound dynamo's

Capacity of Dynamo each 136 Amperes at 110 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed in Engineer room Whether single or double wire system is used single wire system

Position of Main Switch Board in Engineer room, near dynamo having switches to groups 9 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each 11 auxiliary switch boards at different places, with 2, 3, 2, 1, 1, 10, 17, 10, 13, 9 and 5 switches, total numbers of switches 83.

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 no

Are the fuses of non-oxidizable metal yes and constructed to fuse at an excess of 100 per cent over the normal current

Are all fuses fitted in easily accessible positions yes Are the fuses of standard dimensions no 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 yes

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

Total number of lights provided for 459 arranged in the following groups:—

Group	Number of Lights	Lights each of	Candle power	Amperes
A	28	32	9	Amperes
B	43	32	14	Amperes
C	30	32	10	Amperes
D	40	32	13	Amperes
E	73	32	39	Amperes
F	36+4	1000	52	Amperes
G	94	1200	27	Amperes
H	81	32	9.6	Amperes
I	27	32	2.6	Amperes

6 Cargo lights of 6 lamps each of 32 candle power, whether incandescent or are lights incandescent

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

Where are the switches controlling the masthead and side lights placed in chart room

DESCRIPTION OF CABLES.

Description	Amperes	Wires	Wires each	S.W.G. diameter	Square inches	Total sectional area
Main cable carrying	52	7	1.70	16	16	square inches
Branch cables carrying	39	7	1.70	16	16	square inches
Branch cables carrying	3	3	1.3	4	4	square inches
Leads to lamps carrying	2.3	1	1.13	1.5	1.5	square inches
Cargo light cables carrying	2	24	0.45	4	4	square inches

DESCRIPTION OF INSULATION, PROTECTION, ETC.

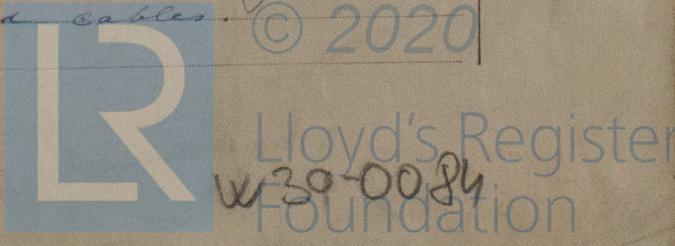
Tinned copper wire insulated with pure I.R., white vulcanized I.R., black vulcanized I.R., I.R. coated tape, lead covered and armoured. Leads to lamps lead covered not armoured.

Joints in cables, how made, insulated, and protected no joints

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances no Are all joints in accessible positions, none being made in bunks, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage no

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 armoured lead covered cables.



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 lead covered and armoured ✓
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat lead covered and armoured ✓
 What special protection has been provided for the cables near boiler casings lead covered and armoured ✓
 What special protection has been provided for the cables in engine room lead covered and armoured ✓
 How are cables carried through beams iron cables through lead or fibre tubes through bulkheads, &c. water tight ✓
 How are cables carried through decks brass casings or galv iron tubes ✓
 Are any cables run through coal bunkers yes or cargo spaces yes or spaces which may be used for carrying cargo, stores, or baggage yes
 If so, how are they protected lead covered and armoured ✓
 Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage yes
 If so, how are the lamp fittings and cable terminals specially protected by heavy iron grating ✓
 Where are the main switches and fuses for these lights fitted outside space in top of engine room ✓
 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 _____
 In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel with brass connecting sheet and brass screws
 How are the returns from the lamps connected to the hull with brass screws ✓
 Are all the joints with the hull in accessible positions yes ✓
 Is the installation supplied with a voltmeter yes and with an amperemeter yes ✓, fixed on main board socket

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 2000 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.

Er. **N. V. Van Rietschoten & Houwens** Electrical Engineers Date _____
 Technisch - Industriële Mij.

COMPASSES.

Distance between dynamo or electric motor and standard compass 37,50 M
 Distance between dynamo or electric motors and steering compass 46,50
 The nearest cables to the compasses are as follows:—
 A cable carrying 0,1 Amperes 1 feet from standard compass 5 feet from steering compass
 A cable carrying 0,1 Amperes 3 feet from standard compass 1 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 nihil degrees on every course in the case of the standard compass and nihil degrees on every course in the case of the steering compass.

NEW WATERWAY SHIPBUILDING Co. Stelton Builder's Signature. Date _____

GENERAL REMARKS. This installation has been fitted in accordance with the Rules and was found in a good working condition when tried, and same merits in my opinion the Committee's approval.

It is submitted that this vessel is eligible for THE RECORD. Dec Light 44 Cleve
 FEE..... £170.00
A.H.B. 13/11/22 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.