

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 13 FEB 1928

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Port of Rotterdam

No. in Survey held at Krumpen La Yssel Date, First Survey 8. 11. 27 Last Survey 28 - 1 1928
Reg. Book. Rotterdam (Number of Visits 12)

on the m. s. "Dordrecht"

Tons { Gross
Net

Built at Krumpen La Yssel By whom built C. v. d. Giessen & Co. Yard No. When built 1927

Owners Phs. v. Immeren Port belonging to Rotterdam

Electric Light Installation fitted by A. V. Elect. Bar. A. de Haas Contract No. When fitted 1927

System of Distribution

Two-wire

Pressure of supply for Lighting

110

volts, Heating

volts, Power

110

volts.

Direct or Alternating Current, Lighting

direct

Power

direct

If alternating current system, state frequency of periods per second

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off

yes

Generators, do they comply with the requirements regarding rating

yes

, are they compound wound

yes

are they over compounded 5 per cent.

yes

, if not compound wound state distance between each generator

Where more than one generator is fitted are they arranged to run in parallel

no

, is an adjustable regulating resistance fitted in series with each shunt field

yes

Are all terminals accessible, clearly marked, and furnished with sockets

yes

, are they so spaced or shielded that they cannot be accidentally earthed,

short circuited, or touched

yes

Are the lubricating arrangements of the generators as per Rule

yes

Position of Generators

in Motorroom

is the ventilation in way of the generators satisfactory

yes

, are they clear of all inflammable material

yes

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators

, are the generators protected from mechanical injury and damage from water, steam or oil

yes

are their axes of rotation fore and aft

yes

Earthing, are the bedplates and frames of the generating plant efficiently earthed

yes

are the prime movers and

their respective generators in metallic contact

yes

Main Switch Boards, where placed

near dynamo's

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes

yes

are they protected from mechanical injury and damage from water, steam or oil

yes

, if situated near unprotected

woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards

and

are they constructed wholly of durable, non-ignitable non-absorbent materials

yes

permanently high insulation resistance

yes

, if semi-insulating material is used, are all conducting parts insulated from the slab

with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework

yes

mica

and is the frame effectively earthed

yes

Are the fittings as per Rule regarding: — spacing or shielding of live parts

yes

, accessibility of all parts

yes

, absence of fuses on back of board

yes

, proportion of omnibus

bars

yes

, individual fuses to voltmeter, pilot or earth lamp

yes

, connections of switches

yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

Generators & outgoing circuits double-pole change-over switches and d.p. fuses.

Instruments on main switchboard 2 ammeters 3 voltmeters — synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

2 earth lamp sets

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules

yes

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule

yes

Cables: Single, twin, concentric, or multicore Single & twin are the cables insulated and protected as per Tables IV or V of the Rules. yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 5 volts

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, valves or other hot objects, or to avoidable risk of mechanical damage.

Support and Protection of Cables, state how the cables are supported and protected *supported by metal clips and protected by tubes or armoring*

If cables are run in wood casings, are the casings and caps secured by screws _____, are the cap screws of brass _____, are the cables run in separate grooves _____. If armored and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII _____

Refrigerated Chambers, *if lights are fitted, are the cables and fittings in accordance with the special requirements* *MS*

Joints in Cables, state if any, and how made, insulated, and protected *No joints*

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed yes state the material of which the bushes are made lead

Earthing Connections, *state what earthing connections are fitted and their respective sectional areas*

are their connections made as per Rule

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule..... *yes*

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven

Navigation Lamps, are these separately wired yes, controlled by separate switch and separate fuses yes, are the fuses double pole yes

are the switches and fuses grouped in a position accessible only to the officers on watch yes

has each navigation lamp an automatic indicator as per Rule yes

Secondary Batteries, are they constructed and fitted as per Rule

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected

gas tight fittings with guards, how are the cables lead

where are the controlling switches situated *in Chartroom*

Searchlight Lamps, No. of _____, *whether fixed or portable* _____, *are their fittings as per Rule* _____

Are Lamps, other than searchlight lamps, No. of , **are their live parts insulated from the frame or case** , **are their fittings as per Rule**

Motors, are their working parts readily accessible. yes, are the coils self-contained and readily removable for replacement yes

are the brushes, brush holders, terminals and lubricating arrangements as per Rule yes, are the motors placed in well-ventilated compartments in which

inflammable gases cannot accumulate and clear of all inflammable material *yes*

are they protected from mechanical injury and damage from water, steam or oil yes are their axes of rotation fore and aft yes

if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type

....., if not of this type, state distance of the combustible material horizontally or vertically above the motors and

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule yes

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule..... *yes*

Ships carrying Oil having a Flash Point less than 150° F. *Have the special requirements of the Rules been complied with regarding switches, joint boxes,*

section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings *yes*

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office

PARTICULARS OF GENERATING PLANT

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel
MAIN	2	70	115	610	400	Steam engines		
AUXILIARY	1	115	115	130	430	miscel. -		
EMERGENCY								
ROTARY TRANSFORMER								

LIGHTING AND HEATING CONDUCTORS

[illegible]

MOTOR CONDUCTORS

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP								
	MAIN BILGE LINE PUMPS ...	1	.02214	✓ 4	.064	30	150	rubber	armature
	GENERAL SERVICE PUMP ...	1	.01462	✓ 7	.052	40	150	paper	— " —
	EMERGENCY BILGE PUMP ...	1	.06000	19	.064	120	00	— " —	— " —
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS ...	2	.06000	19	.064	120	00	— " —	— " —
	CIRC. FRESH WATER PUMPS	2	.0396	✓ 19	.052	60	00	— " —	— " —
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR ...	1	.06000	✓ 19	.064	70	00	— " —	— " —
	ENGINE REVERSING GEAR ...								
	LUBRICATING OIL PUMPS ...	2	.0396	19	.052	70	60	— " —	— " —
	OIL FUEL TRANSFER PUMP ...	1	.02214	✓ 7	.064	124	60	— " —	— " —
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR—								
	(a) MOTOR GENERATOR ...								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR	1	.01462	✓ 7	.052	24	00	— " —	— " —
	VENTILATING FANS	2	.01046	✓ 7	.044	16	200	— " —	— " —
	Oil burner fans	3	.03960	19	.052	70	200	— " —	— " —
	Refrigerator	1	.03960	19	.052	40	400	— " —	— " —
	Purifiers	3	.01046	✓ 7	.044	16	200	— " —	— " —

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All Conductors are of annealed copper conforming to British Standard Specification No. 7.

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

N.V. ELECTROTECHNISCHE WERKEN
A. J. VAN COOP

Electrical Engineers.

Date

4 Febr. '28

COMPASSES.

Distance between electric generators or motors and standard compass

160 feet

Distance between electric generators or motors and steering compass

104 "

The nearest cables to the compasses are as follows:—

A cable carrying 2 Ampères 22 feet from standard compass 0 feet from steering compass.

A cable carrying 1 Ampères 4 feet from standard compass 4 feet from steering compass.

A cable carrying 1 Ampères 1 feet from standard compass 1 feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power? Yes

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted? Yes

The maximum deviation due to electric currents was found to be 0 degrees on every course in the case of the standard compass, and 0 degrees on every course in the case of the steering compass.

C. van der Giessen & Zonen's
Scheepswerven.

Builder's Signature.

Date

Is this installation a duplicate of a previous case? yes If so, state name of vessel m.s. "Duivendrecht"

General Remarks (State quality of workmanship, opinions as to class, &c.)

This installation has

been fitted in accordance with the requirements of the Society's Rules, workmanship good and was found in a good working condition when tried. I am of opinion that this installation merits the approval of the Committee

It is submitted that
this vessel is eligible for
THE RECORD. Elec. light.

Total Capacity of Generators 155 Kilowatts.

The amount of Fee ...

£ 411.00

When applied for,
6/2 19.22.

Travelling Expenses (if any) £

14

When received,
22/2/28

Committee's Minute

TUES. 21. FEB 1928

Assigned

Elec Light



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Foundation