

Rpt. 13.

No. 27107^a.

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 15-7-1938 When handed in at Local Office

19 Port of Rotterdam

No. in Survey held at Flushing

Date, First Survey 25-3-38 Last Survey 14-4-1938

Reg. Book.

(Number of Visits 14)

on the

MV "CLEODORA"

Tons { Gross
Net

Built at Vlissingen

By whom built "de Schelde"

Yard No. 206 When built 1938

Owners Ned. Ind. Vankesbom Mij

Port belonging to

s. Gravenhage

Electric Light Installation fitted by van Rietshoven & Houwens N.V.

Contract No.

When fitted 1938

Is the Vessel fitted for carrying Petroleum in bulk yes ✓

System of Distribution

double pole system ✓

Pressure of supply for Lighting

110 ✓

volts, Heating

volts, Power

110 ✓

volts.

Direct or Alternating Current, Lighting

direct current

Power

direct current

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 temperature rise 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 ✓

Have certificates of test results for machines under 100 kw. been submitted and approved yes ✓

Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing

Have certificates for generators under 100 kw. been supplied and approved 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 ✓, is the ventilation

Position of Generators

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 and

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

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 in Engine room Starboard side ✓

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 ✓, is all insulation of high dielectric strength and of permanently high insulation resistance yes ✓

is it of an approved type 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 ✓, is the non-hygroscopic insulating material of an approved

type yes ✓, 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, temperature rise of

omnibus bars, individual fuses to voltmeter, pilot or earth lamp yes ✓, are moving parts of switches alive in the

"off" position yes ✓, are all screws and nuts securing connections effectively locked yes ✓, are any fuses fitted on the live side of

switches no ✓ Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

dynamo and circuits with double pole switch

Are turbine driven generators fitted with emergency trip switch as per rule yes ✓ Are cupboards or compartments containing switchboards composed of

fire-resisting material or lined with approved material yes ✓ Instruments on main switchboard 2 ✓ ammeters 2 ✓

voltmeters synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection

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

earth lamps ✓ Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules yes ✓ are the fusible cutouts of an approved type yes ✓ have the reversed

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current protection devices been tested under working conditions yes are all fuses labelled as per rule 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 are the cables insulated and protected as per Tables IV, V, X, XI, XII or XIII of the Rules yes

If the cables are insulated otherwise than as per Rule, are they of an approved type yes Fall of Pressure, state maximum between bus bars and

any point of the installation under maximum load yes Cable Sockets, are the ends of all cables having a sectional

area of 0.04 square inch and above provided with soldering sockets yes Paper Insulated and Varnished Cambric Insulated Cables,

If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with

insulating compound yes or waterproof insulating tape yes 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, uptakes or other hot objects, or to avoidable risk of mechanical

damage yes are cables laid under machines or floorplates yes if so, are they adequately protected yes are they adequately protected yes

Are cables in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit yes

Support and Protection of Cables, state how the cables are supported and protected either dished on beams or on perforated plates

If cables are run in wood casings, are the casings and caps secured by screws yes are the cap screws of brass yes are the cables run in

separate grooves yes If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII yes

Refrigerated Chambers, are the cables and fittings in accordance with the special requirements yes

Joints in Cables, state if any, and how made, insulated, and protected none

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

yes 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 hard wood or lead

Earthing Connections, state what earthing connections are fitted and their respective sectional areas only to earth boxes

etc. as big as possible are their connections made as per Rule yes

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 yes

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 yes

are they ventilated as per Rule yes

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight yes

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 yes

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

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PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	1	16	110	145		Steam engine		
AUXILIARY	1	16	110	145		Diesel motor.		
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rule.			
MAIN GENERATOR	1	0.1478	37	0.72	145	149.7	36		
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR	1	0.1478	37	0.72	145	149.7	60		
EMERGENCY GENERATOR									
ROTARY TRANSFORMER									
ENGINE ROOM									
BOILER ROOM									
AUXILIARY SWITCHBOARDS		0.06000	19	0.64	~70	76.3	200		
Workshop W.		0.0462	7	0.52	~20	38.7	160		
Load room a deck		0.0462	7	0.52	10	38.7	540		
Navigation									
ACCOMMODATION									
Engine room	1	0.02214	7	0.64	12	48.4	1000		
Engine room	1	0.03960	19	0.52	51	62.6	540		
Engine room	1	0.02214	7	0.64	37	48.4	120		
Engine room	1	0.01462	7	0.52	39	38.7	60		
WIRELESS	1	0.02214	7	0.64	~40	48.4	600		
SEARCHLIGHT	1	0.0600	19	0.64		76.3	1000		
MASTHEAD LIGHT	1	0.001343	1	0.55	0.4	9.8	500		
SIDE LIGHTS	1	0.001343	1	0.55	0.4	9.8	120		
COMPASS LIGHTS	1	0.001343	1	0.55	0.15	9.8	72		
POOP LIGHTS	1	0.001343	1	0.55	0.4	9.8	750		
CARGO LIGHTS	1	0.001343	1	0.55	2	9.8	500		
HEATERS									

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP										
MAIN BILGE LINE PUMPS										
GENERAL SERVICE PUMP										
EMERGENCY BILGE PUMP										
SANITARY PUMP										
CIRC. SEA WATER PUMPS										
CIRC. FRESH WATER PUMPS										
AIR COMPRESSOR										
FRESH WATER PUMP										
ENGINE TURNING GEAR	1	1	0.1168	19	0.72	61		100		
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS										
OIL FUEL TRANSFER PUMP	1	1	0.007005	7	0.36	17		120		
WINDLASS										
WINCHES, FORWARD										
WINCHES, AFT										
STEERING GEAR—										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
WORKSHOP MOTOR										
VENTILATING FANS	1	1	0.007005	7	0.36	12.5		100		
Emergency stone	1	1	0.1046	7	0.44	24.5		25		
Drilling mach.	1	1	0.1046	7	0.44	17.7		25		
Log the	1	1	0.003217	7	0.265	13.8		25		
Clear away screen	1	1	0.001343	1	0.60	0.5		45		
Oil can	1	1	0.007005	7	0.36	17.6		75		

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The Electrical Equipment is installed in accordance with the approved plans.

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

The foregoing is a correct description.

Rijckeboten & Houwens
Rijckeboten

Electrical Engineers.

Date *5 Juli 1938*

COMPASSES.

Minimum distance between electric generators or motors and standard compass

clear view screen ~ 8 feet.

Minimum distance between electric generators or motors and steering compass

~ 6 feet.

The nearest cables to the compasses are as follows:—

A cable carrying *0.15* Ampères *1* feet from standard compass *4* feet from steering compass.

A cable carrying *0.4* Ampères *6* feet from standard compass *6* feet from steering compass.

A cable carrying *20* Ampères *20* feet from standard compass *15* 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

none

degrees on

every

course in the case of the standard

compass, and

none

degrees on

every

course in the case of the steering compass.

N.V. Kon. Mij. „De Schelde“

H. H. Kesseler

Builder's Signature.

Date *18 JUL 1938*

Is this installation a duplicate of a previous case

yes

If so, state name of vessel

Ob V. Clea

(As a duplicate of my answer of 1938)

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

This installation has been

fitted in accordance with the approved plans, Secretary's letter and Society's Rules, material tested as required and workmanship good. The whole was found in a good working condition when tested and merits in my opinion the approval of the Committee

Noted

H. H.

26.7.38

Total Capacity of Generators *32* Kilowatts.

The amount of Fee ...

176.

When applied for,

19

Travelling Expenses (if any) £

When received,

3 18 38

Committee's Minute

Assigned

FRI 29 JUL 1938

See Rot. 26.27107

J. J. Ochoa

Secretary to Lloyd's Register of Shipping.



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