

M. J. Ekema

Rpt. 13.

No. 24512

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

14 MAY 1936

Date of writing Report 4-5-1936 When handed in at Local Office 10 Port of Rotterdam

No. in Survey held at Rotterdam Date, First Survey 28.2.36 Last Survey 5.5.1936
Reg. Book. (Number of Visits... 18)

on the M.V. "ETREMA" Tons { Gross 6106
Net 3606

Built at Rotterdam By whom built Pott Droogd Mij Yard No. 193 When built 1936

Owners Petroleum Mij "La Corona" Port belonging to Gravenhage

Electric Light Installation fitted by M.V. Pott Electric Mij of Loon Contract No. 1936 When fitted 1936

System of Distribution Two wires

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. —, if not compound wound state distance between each generator —

Where more than one generator is fitted are they arranged to run in parallel not in parallel, 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 engine-room

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

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 engine-room

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 —

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 —, is all insulation of high dielectric strength and of permanently high insulation resistance —, 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

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 one generator has a double pole switch and fuses; the other a double pole two way switch and fuses

Instruments on main switchboard 2 ammeters 2 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 pilot lamps

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

UJLAGE No 37

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Cables: Single, twin, concentric, or multicore single 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 volt

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 yes

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 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

Support and Protection of Cables, state how the cables are supported and protected in engine-room iron cable runs; on deck galvanized iron tubes

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, if lights are fitted, are the cables and fittings in accordance with the special requirements yes

Joints in Cables, state if any, and how made, insulated, and protected in metal boxes with screwed connections

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 lead

Earthing Connections, state what earthing connections are fitted and their respective sectional areas by means of screwed clips

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

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

how are the cables led yes

where are the controlling switches situated yes

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

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

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

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 yes

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	1	16	110	145	390	Steam	Oil	
AUXILIARY	1	16	110	145	390	Steam	Oil	
EMERGENCY	2	100 Kw each	110v.	145	390	Gas	Oil	
ROTARY TRANSFORMER								

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR	1	95	37	1.83	145	266	rubber	Lead and steel arm.
	EQUALISER CONNECTIONS								
	AUXILIARY GENERATOR	1	95	37	1.83	145	266		
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	1	10	7	1.32	35	40		
	BOILER ROOM	1	10	7	1.32	35	40		
	ACCOMMODATION								
	navigation	1	10	7	1.32	5	176		
	workshop	1	35	19	1.62	80	70		
	fore-ship	1	16	7	1.62	8	300		
	amid-ship	1	16	7	1.62	32	154		
	aft-ship	1	16	7	1.62	29	56		
	WIRELESS	1	16	7	1.62		212		
	SEARCHLIGHT	1	35	19	1.62		330		
	MASTHEAD LIGHT	1	14	3	0.74	0.5	110		
	SIDE LIGHTS	1	14	3	0.74	0.5	28		
	COMPASS LIGHTS	1	14	3	0.74	0.5	10		
	POOP LIGHTS	1	14	3	0.74	0.5	150		
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	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	70	37	1.62	104	456	rubber	Lead and steel arm.
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP	1	14	3	0.74	6	35		
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR								
	VENTILATING FANS	1	4	7	0.91	16	38		
	Grinding mach	1	6	7	1.12	24	20		
	Lathe motor	1	2	3	0.91	12	22		
	Drill mach motor	1	4	7	0.91	16	10		
	Oil separator	1	4	7	0.91	16	48		

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. Rotterdamsche Electriciteits Mij.
 VAN H. CROON & CO.
W. Croon D.V.R.

Electrical Engineers.

Date *8.5.1936*

COMPASSES.

Distance between electric generators or motors and standard compass *Yes*
 Distance between electric generators or motors and steering compass *Yes*
 The nearest cables to the compasses are as follows:—
 A cable carrying *0.2* Ampères *2'* feet from standard compass *2'* feet from steering compass.
 A cable carrying *-* Ampères *-* feet from standard compass *-* feet from steering compass.
 A cable carrying *-* Ampères *-* 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*
 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 *nil* degrees on *every* course in the case of the standard compass, and *nil* degrees on *every* course in the case of the steering compass.

ROTTERDAMSCH-DRUUKMAATSCHAPPIJ
 Director

A. Mape

Builder's Signature.

Date *12.5.36*

Is this installation a duplicate of a previous case *Yes* If so, state name of vessel *MV EULOTA*
Wilton Fynewerf 4000 GRT

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

This installation has been fitted in accordance with the approved plan, Society's Rules and Secretary's letters material tested as required and workmanship good. The whole has been examined under full working condition and found in order and merits in my opinion the approval of the Committee

W. C. H. M.

Total Capacity of Generators *32* Kilowatts.

The amount of Fee ... *£ 276* : { When applied for, ... 19...
 Travelling Expenses (if any) £ *4* : { When received, *29.5.36* 19...
2/6

J. J. Oetova
 Surveyor to Lloyd's Register of Shipping.
8.5.36

Committee's Minute *FRI. 22 MAY 1936*

Assigned

See Rot. J.E. 34572

Im. 127.—Transfer. (The Surveys are requested not to write on or below the space for Committee's Minute.)



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