

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL) 14 MAR 1931

Date of writing Report 27-2-1931 When handed in at Local Office 10 Port of Rotterdam
 No. in Survey held at Rotterdam Date, First Survey 30-12-30 Last Survey 27-2-1931
 Reg. Book. (Number of Visits 12)
 on the MS. "MIDRECHT" Tons Gross 7493
 Net
 Built at ROTTERDAM By whom built ROTTERD. DROOGDOEK MJ. Yard No. When built 1930-1931
 Owners PH. V. OMMEREN'S SCHEEPVAARTBEDRIJF Port belonging to ROTTERDAM
 Electric Light Installation fitted by N. V. ELECTROTECHN. BUREAU A. DEHOOP Contract No. When fitted 1930-1931
 Is the Vessel fitted for carrying Petroleum in bulk YES

System of Distribution TWO WIRE.

Pressure of supply for Lighting 115 volts, Heating 115 volts, Power 115 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 YES, 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 and, 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 IN MOTORROOM

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, 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

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 FOR EACH DYNAMO

1 THREE POLE OVERLOAD CIRCUITBREAKER AND REVERSED CURRENT TRIP. FOR EACH OUTGOING CIRCUIT A SINGLE FUSE ON THE INSULATED POLE.

Instruments on main switchboard 3 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

EARTH 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



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Cables: Single, twin, concentric, or multicore SINGLE AND 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 2.3 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 SUPPORTED BY METAL CLIPS AND PROTECTED BY TUBES AND ARMOURING

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 NO JOINTS

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

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 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

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

are the cables led IN GASTIGHT TUBES

are the cables led

where are the controlling switches situated IN OFFICERS' ACCOMODATION

Searchlight Lamps, No. of 1, whether fixed or portable 1, are their fittings as per Rule YES

Arc Lamps, other than searchlight lamps, No. of 1, 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

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

are 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

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 ...	2	70	115	609	300	STEAM ENGINE		
AUXILIARY ...	1	45	115	383	430	DIESELMOTOR	DIESEL OIL	ABOVE 150° F
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 Effective Area per Pole Sq. mm.	No.	Diameter. m.m.	In Circuit.	Rule.			
MAIN GENERATOR ...	2	620	2x61	2.55	609	624	54	RUBBER	LEAD COVERED AND ARMoured
EQUALISER CONNECTIONS ...	2	620	2x61	2.55	609	624	27	"	"
AUXILIARY GENERATOR ...	1	400	61	2.89	383	384	270	"	"
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR...									
ENGINE ROOM...	2	16	7	1.73	40	46	58	"	"
BOILER ROOM...									
AUXILIARY SWITCHBOARDS ...									
ACC. CAPTAIN, ETC.	1	16	7	1.71	12	50	516	"	"
ACCOMMODATION OFFICERS ...	1	16	7	1.71	15	50	504	"	"
FORECASTLE	1	10	7	1.35	5	38	792	"	"
CHART ROOM	1	10	7	1.35	5	38	570	"	"
ACC. ENGINEERS	1	10	7	1.35	19	38	135	"	"
" CREW	1	10	7	1.35	17	38	120	"	"
WIRELESS ...	1	10	7	1.35	9	38	570	"	"
SEARCHLIGHT ...									
MASTHEAD LIGHT ...	1	1.5	1	1.39	0.5	8	510	"	"
SIDE LIGHTS ...	1	1.5	1	1.39	0.5	8	96	"	"
COMPASS LIGHTS ...	1	1.5	1	1.39	0.5	8	30	"	"
POOP LIGHTS ...	1	1.5	1	1.39	0.5	8	750	"	"
CARGO LIGHTS ...	1	1.5	1	1.39	2.5	8	120	"	"
ARC LAMPS ...									
HEATERS ...	1	16	7	1.71	35	50	135	"	"

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 Effective Area per Pole Sq. mm.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP ...										
MAIN BILGE LINE PUMPS ...	1	1	50	19	1.83	64	97	201	RUBBER	LEAD COVERED AND ARMoured.
GENERAL SERVICE PUMP ...	1	1	50	19	1.83	64	97	115	"	"
EMERGENCY BILGE PUMP ...										
SANITARY PUMP ...										
CIRC. SEA WATER PUMPS ...	2	1	150	37	2.27	144	195	33	"	"
CIRC. FRESH WATER PUMPS...	2	1	50	19	1.83	64	97	87	"	"
AIR COMPRESSOR ...										
FRESH WATER PUMP ...										
ENGINE TURNING GEAR...	1	1	50	19	1.83	64	97	228	"	"
ENGINE REVERSING GEAR ...										
LUBRICATING OIL PUMPS ...	3	1	50	19	1.83	74	97	57	"	"
OIL FUEL TRANSFER PUMP...	1	1	50	19	1.83	64	97	171	"	"
WINDLASS ...										
WINCHES, FORWARD ...										
WINCHES, AFT ...										
STEERING GEAR—										
(a) MOTOR GENERATOR...										
(b) MAIN MOTOR ...										
WORKSHOP MOTOR ...	3	1	25	7	2.13	55	60	144	"	"
VENTILATING FANS ...										
BOILER FANS	2	1	150	37	2.27	154	195	204	"	"
REFRIGERATING MOTOR	1	1	50	19	1.83	64	97	208	"	"
GALLEY FANS	2	1	2.5	1	1.79	10	13	48	"	"
PUMPSET "C"	1	1	150	37	2.27	144	195	150	"	"
OIL PUMPS	2	1	50	19	1.83	64	97	57	"	"

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.

[Handwritten signature]

N.V. ELECTROTECHN. BUREAU A. DE HOOP. Electrical Engineers. Date 14-2-'31

COMPASSES.

Distance between electric generators or motors and standard compass 31 FEET
 Distance between electric generators or motors and steering compass 27 FEET
 The nearest cables to the compasses are as follows:—
 A cable carrying 0.5 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 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.

ROTTERDAMSCHЕ DROOGBOEK WAREN
[Handwritten signature]

Builder's Signature. Date

Is this installation a duplicate of a previous case YES If so, state name of vessel M.S. MOORDRECHT.

General Remarks (State quality of workmanship, opinions as to class, &c. This installation has been fitted in accordance with the approved plan, Secretary's letters and Society's Rules, material and workmanship good and was found in a good working condition when tried. I am of opinion that this installation may merit the Committee's approval.

It is submitted that this vessel is eligible for THE RECORD
[Handwritten signature]
 14/3/31

Total Capacity of Generators 185 Kilowatts.

The amount of Fee ... £ 429.00
 Travelling Expenses (if any) £ —
 When applied for, 6/3/31
 When received, 21/3/31

[Handwritten signature]
 Approved to Lloyd's Register of Shipping.

Committee's Minute TUE. 24 MAR 1931 TUE. 6 OCT 1931

Assigned Elec. Light

Im. 1238.—Transfer.
 (The Surveys are requested not to write on or below the space for Committee's Minute.)