

No 204670

Rpt. 13.

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 18 July 1931 When handed in at Local Office

Port of Rotterdam

No. in Survey held at Rotterdam

Date, First Survey 17 March

Last Survey 30/6

19 31

Reg. Book.

on the m/v. "MACUBA."

Tons { Gross
Net

Built at Rotterdam

By whom built Mach. Fabr. & Scheepsmet

k/h. "Piet Smit jr"

Yard No. 469

When built 1931

Owners H. J. B. B. B.

Port belonging to i Groenhuys (The Hague)

Electric Light Installation fitted by N. F. Electriciteits Mij. A. E. G.

Contract No.

When fitted 1931.

Is the Vessel fitted for carrying Petroleum in bulk

Yes

System of Distribution

Two wire

volts, Heating

volts, Power

110

volts.

Pressure of supply for Lighting

110

Power

direct

Direct or Alternating Current, Lighting

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 engine room

starboard

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

in wood and work

, 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

engine room starboard

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

same compartment

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

wood and work

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

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 20 x 5 m.m. 4 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

a double pole switch and a double pole fuse, for each outgoing circuit a double pole change over switch and a double pole fuse

Instruments on main switchboard two ammeters two 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

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

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load apx. 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 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 ✓

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, cables in accommodations etc are supported by metal clips as per Rules, cables on deck in galv. tubes

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 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 watertight boxes

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 ✓

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule yes, are their connections made as per Rule ✓

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven none

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 none

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 none fitted

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

of airtight boxes, how are the cables led

through galv. pipes on deck

where are the controlling switches situated on switchboard in Chartroom

Searchlight Lamps, No. of none, whether fixed or portable ✓, are their fittings as per Rule ✓

Arc Lamps, other than searchlight lamps, No. of none, 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

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

and 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 none

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 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	146	390	single cylinder steam engine	soler oil	above 150° F
AUXILIARY ...	1	16	110	146	390	Klankhaut motor		
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR ...	1	95 sq. mm.	19	5.9 mm.	146	156	8 m.	rubber	lead covered armoured
EQUALISER CONNECTIONS ...									
AUXILIARY GENERATOR ...	1	95 "	19	5 "	146	156	8 "	"	"
EMERGENCY GENERATOR ...									
ROTARY TRANSFORMER MOTOR ...									
ENGINE ROOM ... S.B.	1	16 "	7	2.3 "	20	53	10 "	"	"
BOILER ROOM ...									
AUXILIARY SWITCHBOARDS ...	1	16 "	7	2.3 "	20	53	10 "	"	"
Engine Room P.									
ACCOMMODATION ...									
POOP DECK	1	16 "	7	2.3 "	45	53	50 "	"	"
FORESHIP	1	16 "	7	2.3 "	12	53	290 "	"	"
ANNIDSLIP	1	25 "	7	3.6 "	45	66	190 "	"	"
WIRELESS ...	1	10 "	7	1.43 "	24	40	70 "	"	"
SEARCHLIGHT ...	1	15 "	7	0.212 "	0.5	9.6	1208 100 "	"	"
MASTHEAD LIGHTS ...	1	15 "	7	0.212 "	0.5	9.6	30 "	"	"
SIDE LIGHTS ...	1	15 "	7	0.212 "	0.5	9.6	10 "	"	"
COMPASS LIGHTS ...	1	15 "	7	0.212 "	0.5	9.6	10 "	"	"
POOP LIGHTS ...									
CARGO LIGHTS ...	1	6 "	7	0.86 "	15	28	290 "	"	"
ARC LAMPS ...									
HEATERS ...									

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Effective 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 ...	2	1	35 sq. mm.	19	1.84 mm.	80	90	10.18 m.	rubber	lead covered armoured
ENGINE REVERSING GEAR ...										
LUBRICATING OIL PUMPS ...										
OIL FUEL TRANSFER PUMP ...										
WINDLASS ...										
WINCHES, FORWARD ...										
WINCHES, AFT ...										
STEERING GEAR—										
(a) MOTOR GENERATOR ...										
(b) MAIN MOTOR ...	4	1	35 sq. mm.	19	1.84 "	40	80	50 m.	"	"
WORKSHOP MOTOR-S ...										
VENTILATING FANS ...										

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. ELECTRICITEITS MAATSCHAPPIJ AEG

Electrical Engineers.

Date 24 June 1931

COMPASSES.

Distance between electric generators or motors and standard compass

225 feet

Distance between electric generators or motors and steering compass

225 feet

The nearest cables to the compasses are as follows:—

A cable carrying 1.5 Ampères 9 feet from standard compass 9 ft feet from steering compass.

A cable carrying 1.5 Ampères 9 feet from standard compass 9 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 nil degrees on any course in the case of the standard compass, and nil degrees on any course in the case of the steering compass.

N.V. MACHINEFABRIEK & SCHEEPSWERF
van P. SMIT Jr., ROTTERDAM.

Builder's Signature.

Date

Is this installation a duplicate of a previous case no If so, state name of vessel ✓

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

The installation has been made and fitted in accordance with the Society's Rules approved plan and Certificate. The workmanship is good. The plant has been tried during a trial trip and was found working satisfactorily and meets in my opinion the approval of the Committee.

It is submitted that
this vessel be eligible for
the Record.

See Light

DA. 14/7/31

Total Capacity of Generators 32 Kilowatts.

The amount of Fee ...

£ 276.00

When applied for,

10/7/31

When received,

16/7/31

Travelling Expenses (if any) £

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 21 JUL 1931

Assigned

See Light



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Lloyd's Register
Foundation