

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

No. 15799

10 NOV 1926

Date of writing Report 1-11-1926 When handed in at Local Office

Port of Rotterdam

No. in Survey held at Rotterdam

Date, First Survey 13-8-26 Last Survey 20-10-1926

Reg. Book.

on the H. Frasca

(Number of Visits 2)

Built at Schiedam

By whom built

Smulders Engineering and Shipbuilding Works

Yard No. 597

Tons { Gross  
Net

When built 1926

Owners Curacaasche Scheepvaart Mij

Port belonging to

Willemstad

Electric Light Installation fitted by H. van Rietschoten, Houtvuss Contract No. 1 When fitted 1926.

System of Distribution two wire 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

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

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 near main switchboard

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 engine room near dynamo

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 micaite 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

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

a double pole quick linked knife switch and double pole fuse, for each outgoing circuit, a double pole quick linked knife switch and double pole fuse.

Instruments on main switchboard 1 ammeters 1 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

two 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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**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, 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 cabins lead covered. In all other places lead covered and armoured. These cables on deck in iron tubes and in tuggerroom secured by metal clips.*

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 \_\_\_\_\_.

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

**Joints in Cables, state if any, and how made, insulated, and protected** ..... *no joints* 1

**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 Y/N state the material of which the bushes are made Lead ~~iron~~ or hard wood

**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 .....

**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 Yes

are any fillings 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.....

....., how are the cables led

where are the controlling switches situated.....

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

*Arc 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

flammable 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 no.

*f 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 ... ..	1	8	110	73	375	Steam engine		
AUXILIARY ... ..								
EMERGENCY ... ..								
ROTARY TRANSFORMER								

[illegible]

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No of Motors.	Effective Area of each Conductor Sq. In.	COMPOSITION OF STRAND.		Total Maximum Current. am. or ct.	Approximate Length. (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No	Diameter.				
	BALLAST PUMP ... ..		<i>4 1/2</i>						
	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 ...								
	ENGINE REVERSING GEAR ...								
	LUBRICATING OIL PUMPS ...								
	OIL FUEL TRANSFER PUMP	<i>1</i>	<i>4 1/2</i>	<i>1</i>	<i>2,26.</i>	<i>7.1</i>	<i>60</i>	<i>rubber</i>	<i>lead covered and approved.</i>
	WINDLASS ... ..								
	WINCHES, FORWARD ... ..								
	WINCHES, AFT ... ..								
	STEERING GEAR—								
	(a) MOTOR GENERATOR...								
	(b) MAIN MOTOR ... ..								
	WORKSHOP MOTOR ... ..								
	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. Van Rietschoten & Houwens'

Electrotechnische Maatschappij

Electrical Engineers.

Date 19<sup>th</sup> October 1926

# COMPASSES.

Distance between electric generators or motors and standard compass

80 feet

Distance between electric generators or motors and steering compass

76 feet

The nearest cables to the compasses are as follows:—

A cable carrying 6 Ampères 18 feet from standard compass 70 feet from steering compass.

A cable carrying 1/3 Ampères 8 feet from standard compass 85 feet from steering compass.

A cable carrying 1/3 Ampères 82 feet from standard compass 9 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 nihil degrees on every course in the case of the standard

compass, and nihil degrees on every course in the case of the steering compass.

WERE QUOTE  
F A F SMULDERS

Het Looi, A. van der Beek,  
Builder's Signature.

Date 4 November 1926.

Is this installation a duplicate of a previous case Yes If so, state name of vessel s/ matilde  
s/ marlino  
s/ marcelle.

General Remarks (State quality of workmanship, opinions as to class, &c. This installation has been

fitted in accordance with the Rules and found in good working condition when tried and merite in my opinion the Committee's approval.

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

J. W. D.  
15/11/26

Total Capacity of Generators 8 Kilowatts.

The amount of Fee ... £ 196.00 : When applied for, 3/11 1926  
Travelling Expenses (if any) £ R : When received, 10/11 1926

J. H. Bounce  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 16 NOV 1926

Assigned

Elec. light

Im. 128—Transfer.  
(The Surveyors are requested not to write on or below the space for Committee's Minutes.)



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