

25 JAN 1932

932

Rpt. 13.

No. 20869

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

25 JAN 1932

Date of writing Report 15-1-1932 When handed in at Local Office

19

Port of Rotterdam

No. in Survey held at Schiedam

Date, First Survey

8-5-31

Last Survey

12-1-1932

Reg. Book.

(Number of Visits 12)

on the M. S. "Malvina"

Tons { Gross 8249.36
Net 4782.10

Built at Rotterdam

By whom built

Wilton-Finewood

Yard No. 420

When built 1931

Owners Petroleum Mty. "La Corona"

Port belonging to

S. Gravenhage

Electric Light Installation fitted by W. N. H. Hoos, A. E. L. Mty.

Contract No.

When fitted 1931

Is the Vessel fitted for carrying Petroleum in bulk Yes.

System of Distribution double 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

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

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

no woodwork 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 between dynamos

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

Yes 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

Yes

and

Yes

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

double pole

with double fuses, quick linked knife fall over switches

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

by lamps

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules

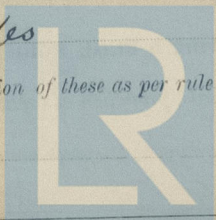
Yes

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule

Yes

005075-005081-0099 1/2

0099 2/2



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Cables: Single, twin, concentric, or multicore single twin are the cables insulated and protected as per Tables IV or V of the Rules Yes 24a III

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 3 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 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, cables are protected by lead and galvanised

armoured, supported on steel strips, on the decks and masts protected by galvanised 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 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 Yes

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 in chartroom

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 none

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

how are the cables led through galvanised pipes on deck

where are the controlling switches situated on switchboard in chartroom

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

Are 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 none 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

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	✓	✓
AUXILIARY ...	1	16	110	145	390	Motor	gas 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.)	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. mm.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	1	95	19	5	146	156	8	rubber	Lead covered & armoured.
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR	1	95	19	5	146	156	8	"	"
EMERGENCY GENERATOR									
ROTARY TRANSFORMER } MOTOR GENERATOR...									
ENGINE ROOM... <i>A.B.</i>	1	16	7	2.3	20	53	10	"	"
BOILER ROOM... ..									
AUXILIARY SWITCHBOARDS									
<i>Eng. room Part.</i>	1	16	7	2.3	20	53	10	"	"
ACCOMMODATION									
<i>Galley</i>	1	16	7	2.3	45	53	50	"	"
<i>For ship</i>	1	16	7	2.3	12	53	240	"	"
<i>Amidships</i>	1	25	7	3.6	45	66	190	"	"
WIRELESS	1	10	7	1.43	24	40	70	"	"
SEARCHLIGHT									
MASTHEAD LIGHT	1	1.5	7	0.212	0.5	9.6	120-180	"	"
SIDE LIGHTS	1	1.5	7	0.212	0.5	9.6	10	"	"
COMPASS LIGHTS	1	1.5	7	0.212	0.5	9.6	10	"	"
POOP LIGHTS									
CARGO LIGHTS	1	6	7	0.86	15	28	240	"	"
ARC LAMPS									
HEATERS									

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.)	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	19	1.84	80	80	10-18	"	"
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS										
OIL FUEL TRANSFER PUMP										
WINDLASS										
WINCHES, FORWARD										
WINCHES, AFT										
STEERING GEAR—										
(a) MOTOR GENERATOR...										
(b) MAIN MOTOR										
WORKSHOP MOTOR	4	1	35	19	1.84	40	80	50	"	"
VENTILATING FANS	24									
Cable support motor	1									

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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. W. N. HOOS & Co's
ELECTRICITEITS MAATSCHAPPIJ

Electrical Engineers.

Date *January 1932*

W. N. Hoos

DIRECTEUR.

COMPASSES.

Distance between electric generators or motors and standard compass *225 ft.*

Distance between electric generators or motors and steering compass *225 ft.*

The nearest cables to the compasses are as follows:—

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

A cable carrying *1.5* Ampères *9* feet from standard compass *9* 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 *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.

WILTON-FIJENOORD.
(N.V. WILTON'S Machinefabriek en Scheepswerf
(WILTON'S Engineering & Slipway Co.)
Maatschappij voor Scheeps- en Werktuigbouw
"FIJENOORD" N.V.)

Builder's Signature.

Date

W. N. Hoos

Is this installation a duplicate of a previous case *Yes* If so, state name of vessel *Maamba - Mauna Se.*

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

made and fitted in accordance with the Society's Rules, approved plan and Secretary's letters. Workmanship good. The plant has been tested during a trial and was found in good working condition and meets in my opinion the Committee's approval.

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

Elec Light

DA 26/1/32.

Total Capacity of Generators *32.* Kilowatts.

The amount of Fee ... *£246.00*

When applied for,

19...

Travelling Expenses (if any) £ *—*

When received,

26.2.32

C. H. Bourse
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI, 29 JAN 1932

Assigned

Elec Light



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