

Rpt. 13.

No. 2023

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

2 OCT 1952

Date of writing Report **8th Sept. 19 52** When handed in at Local Office _____ 19____ Port of **H A M B U R G**

No. in Survey held at **H A M B U R G** Date, First Survey **1st Aug. 52** Last Survey **26th August 19 52**

Reg. Book. _____ (No. of Visits **12**)

S 95289 on the **M.V. "MOSOL"** Tons **Gross 11.348**
Net 6.713

Built at **Hamburg** By whom built **Deutsche Werft A.G.,** Yard No. **640** When built **1952**

Owners **Compania de Navegaciona Martora, S.A.** Port belonging to **Panama City**

Installation fitted by **A.E.G., Schiffbau, Hamburg** When fitted **1952**

Is vessel equipped for carrying Petroleum in bulk **yes** Is vessel equipped with D.F. **yes** E.S.D. **yes** Gy.C. **yes** Sub.Sig. **-** Radar **yes**

Plans, have they been submitted and approved **yes** System of Distribution **2 wire insulated** Voltage of Lighting **110**

Heating **220** Power **220** D.C. or A.C., Lighting **DC** Power **DC** If A.C. state frequency _____

Prime Movers, has the governing been found as per Rule when full load is thrown on and off **yes** Are turbine emergency governors fitted

with a trip switch **-** Generators, are they compound wound **yes**, and level compounded under working conditions **yes**,

Are the generators arranged to run in parallel **yes** Is the compound winding connected to the negative or positive pole **negative**

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing **yes** Have certificates of test for machines

under 100 kw. been supplied and the results found as per Rule **yes** Position of Generators **engine room, port inboard,**

port outboard, port aft, starboard in U.T.D. (steam), port aft in U.T.D. (Emergency)

is the ventilation in way of generators satisfactory **yes** are they clear of inflammable material and protected from mechanical injury and

damage from water, steam and oil **yes** Switchboards, where are main switchboards placed **engine room, lower tween deck**

port aft (main) and engine room, upper tween deck, port aft (auxiliary switchboard)

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water,

steam and oil **yes**, what insulation is used for the panels **generators: dead front construction**

material is it an Approved Type **-**, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as

per Rule **-** Is the construction as per Rule, including locking of screws and nuts **yes** Description of Main Switchgear

for each generator and arrangement of equaliser switches **triple pole linked circuit breakers with O/C releases in**

two poles and R/C release in one pole, third pole used for equalizer.

Aux. generator: **double pole linked circuit breaker with O/C release in both poles**

and the switch and fuse gear (or circuit breakers) for each outgoing circuit **double pole linked switch with fuse on**

each pole

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule **yes** Instruments on main switchboard **7**

ammeters **4** voltmeters **-** synchronising devices. For compound machines in parallel are the ammeters and reverse current

protection devices connected on the pole opposite to the equaliser connection **yes** Earth Testing, state means provided **3 Ohm metres**

1 main swbd., 2 aux. swbd. Preference Tripping, state if provided **no**, and tested **-**

Switches, Circuit Breakers and Fuses, are they as per Rule **yes**, are the fuses an Approved Type **yes**

make of fuses **Siemens**, are all fuses labelled **yes** If circuit breakers are provided for the generators, at what

overload do they operate **650 Amps.**, and at what current do the reverse current protective

devices operate **70 Amps.** Cables, are they insulated and protected as per Rule **yes**,

if otherwise than as per Rule are they of an Approved Type **yes**, state maximum fall of pressure between bus bars and any point

under maximum load **5** volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends **yes**

Are all the cable runs in accessible positions not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical

damage **yes**, are any cables laid under machines or floorplates **no**, if so, are they adequately protected **-** State

type of cables (if in conduit this should also be stated) in machinery spaces **MK Marine**, galleys **MK Marine**

and laundries **-** State how the cables are supported or protected **suitably clipped on cable**

trays; in pump rooms and bridge tween deck led in conduit pipes

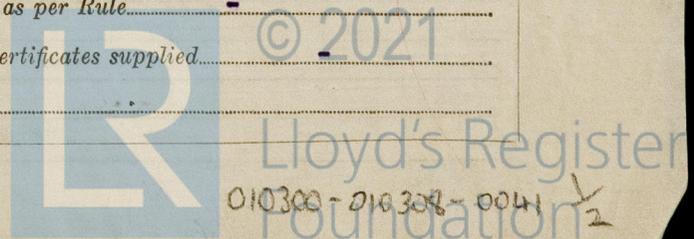
Are all lead sheaths, armouring and conduits effectually bonded and earthed **yes** Are all cables passing through decks and watertight

bulkheads provided with deck tubes or watertight glands **yes**, where unarmoured cables pass through beams, etc., are the holes

effectively bushed **yes** Refrigerated chambers, are the cables and fittings as per Rule **-**

Have refrigeration fan motors been constructed under survey **-** and test certificates supplied **-**

Are the motors accessible for maintenance at all times **-**



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. **yes** Emergency Supply, state position engine room, upper tween deck, port

Navigation Lamps, are they separately wired. **yes** controlled by separate double pole switches and fuses. **yes** Are the switches and fuses in a position accessible only to the officers on watch. **yes** is an automatic indicator fitted. **yes** Is an alternative supply provided. **yes**

Secondary Batteries, are they constructed, fitted and adequately ventilated as per Rule. **-** state battery capacity in ampere hours. **-** Where required to do so does it comply with 1948 International Convention. **-**

Lighting, is fluorescent lighting fitted. **no** If so, state nominal lamp voltage. **-** and compartments where lamps are fitted. **-**

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. **yes**

Searchlights, No. of. **1** whether fixed or portable. **portable** are they of the carbon arc or of the filament type. **filament**

Heating and Cooking, is the general construction as per Rule. **yes** are the frames effectually earthed. **yes** are heaters in the accommodation of the convection type. **-** Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil. **yes**

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment. **yes** Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. **-**

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule. **yes**

Lightning Conductors, where required are they fitted as per Rule. **-**

Ships carrying Oil having a Flash Point of less than 150° F. Have all the special requirements of the Rules for such ships been complied with. **yes** are all fuses of an Approved Cartridge Type. **yes** make of fuse. **Siemens & Stofz** Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships. **yes** Are all cables lead covered as per Rule. **yes**

E.S.D., if fitted state maker. **Atlas Werke** location of transmitter and receiver. **between frames 181 - 182 (cofferdam)**

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations. **yes**

Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory. **yes**

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				TYPE.	PRIME MOVER.
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.		
MAIN	3	A.E.G. (Lloyd Dynamo Werke)	130	230	565	500	4 SCSA	M.A.N.
Auxiliary	1	A.E.G. (Lloyd Dynamo Werke)	80	230	350	400	5 cyl.	
EMERGENCY	1	Hansa Motoren	30	230	136	1000	3 cyl. 4SCSA	Deutsche Werft A.G.
ROTARY TRANSFORMER	2	"	30	110	260	1450	el. motor	Hansa Motoren, Hamburg

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) m.	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands.	In the Circuit.	Rule.			
			MAIN GENERATOR	3	130	3			
" EQUALISER	3		2	185	-	470	10+19+17	"	
Auxiliary Generator	1	80	2	300	350	630	78	"	
EMERGENCY GENERATOR	1	30	1	150	136	205	15	"	
ROTARY TRANSFORMER: MOTOR	2	38	2	95	180	180	12+15	"	
" GENERATOR	2	30	2	150	260	410	12+15	"	

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

DESCRIPTION.	No. of	Kw.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands.	In the Circuit.	Rule.	INSULATION.	PROTECTIVE COVERING.
Main to Auxiliary Switch Board	2	95	200	300	16	Rubber	LC & metal braided	
Distrib. Board 10 (Aux. engines)	1	120	125	175	86	"	"	

DISTRIBUTION CABLES (to Section-Boards and Distribution-Fuse-Boards, etc.).

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) m.	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands.	In the Circuit.	Rule.			
	Wireless	1	16	35			
Cables to Distrib. Boards for Power (220V)							
DB 3 & 2	1	95	125	150	204	"	"
DB 3 to DB 2	1	4	15	22.5	11	"	"
DB 5 (ventilators)	1	70	125	125	112	"	"
DB 5 (heating)	1	10	35	38	114	"	"
DB 6	1	35	80	78	52	"	"
DB 9 (workshop)	1	16	35	49	20	"	"
Galley	1	120	160	175	64	"	"
Baking Oven	1	25	60	63	74	"	"
Cables to DB for Lighting (110 V)							
Navigation Lights	1	2.5	10	15.5	244	"	"
DB 1 - 2 - 3	1	150	160	205	204	"	"
DB 3 to DB 2	1	35	80	78	11	"	"
DB 2 to DB 1	1	2.5	10	15.5	17	"	"
DB 7 & 4	1	25	60	63	58	"	"
DB 7 to DB 4	1	25	60	63	3	"	"
DB 8 & 5	1	35	80	78	87	"	"
DB 8 to DB 5	1	35	80	78	3	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	No.	B.H.P.	No.	B.H.P.	INSULATION.	PROTECTIVE COVERING.
From Main Switchboard:								
Steering engine I	1	16	1	35	64	72	Rubber	LC & metal braided
Steering engine II	1	16	1	35	64	80	"	"
Fwd. air compressor	1	72	2	150	410	17	"	"
Aft air compressor	1	72	2	150	410	27	"	"
Sea Circulating pump I	1	60	2	120	350	55	"	"
Sea Circulating pump II	1	60	2	120	350	55	"	"
Fresh water cooling pump	1	60	2	120	350	49	"	"
Fwd. lub. oil pump	1	40	1	185	235	70	"	"
Aft lub. oil pump	1	40	1	185	235	68	"	"
Fire extinguishing pump	1	40	1	185	235	110	"	"
Bilge pump	1	20	1	70	125	108	"	"
O.F. transfer pump	1	20	1	70	125	40	"	"
Pt. La Mont Circulating pump	1	1.5	1	2.5	15.5	53	"	"
Stbd. La Mont Circulating pump	1	1.5	1	2.5	15.5	54	"	"
From Distr. Board 10								
Aux. fresh water cooling pump	1	5	1	6	29	2.5	"	"
Aux. sea circulating pump	1	5	1	6	29	3	"	"

NOTE.—Use Rpt. 13 Continuation Sheet if the above space is insufficient.

