

REC'D NEW YORK OCT 27 1961

No. 364

Rpt. 13.

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report Oct. 24, 1961 When handed in at Local Office 19 Port of Miami

No. in Survey held at Miami Date, First Survey July 18 Last Survey Oct. 25, 1961
Reg. Book. (No. of Visits 970 90)

on the Steel M/V "MARIA VERONICA" ex USN LSM-369 Tons Gross 970 90
Net 510

Built at Houston, Texas By whom built Brown Shipbuilding Co. Yard No. When built 1944

Owners J. Manuel Cordova Port belonging to Valpariso (Chile)

Installation fitted by When fitted

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

Plans, have they been submitted and approved System of Distribution single phase 2 wire lighting branch circuits
3 phase 3 wire for power & light feeders Voltage of Lighting 117

Heating -- Power 450 ~~DC~~ or A.C., Lighting 117 AC 110 volt DC steering & radio
Power 440 AC If A.C. state frequency 60

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 shunt, and level compounded under working conditions shunt,
if not compound wound state distance between generators 6' and from switchboard 8' Are the generators arranged to run

in parallel yes, are shunt field regulators provided yes Is the compound winding connected to the negative or positive pole
positive Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing no Have certificates of

test for machines under 100 kw. been supplied no and the results found as per Rule --

Position of Generators in engine room

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 in engine room

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 Bakelite, if of synthetic insulating

material is it an Approved Type yes, 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 AC-3 pole circuit breaker with overload and reverse
power trips. DC-2 pole circuit breaker with overload and reverse current trips.

and the switch and fuse gear (or circuit breakers) for each outgoing circuit 2 and 3 pole molded case circuit breakers

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard 450 volt AC2
120 volt DC2

ammeters 2 lamps & Synchroscope For compound machines in parallel are the ammeters and reversed current
protection devices connected on the pole opposite to the equaliser connection no equalizer Earth Testing, state means provided ground
lamps on 450 volt AC, 117 volt AC and 120 volt DC

Switches, Circuit Breakers and Fuses, are they as per Rule USN Rules, are the fuses an Approved Type yes NEC ,
make of fuses Buss, are all fuses labelled yes If circuit breakers are provided for the generators, at what

overload do they operate 150% of 160 amp., and at what current do the reversed current protective devices operate 10 amp.

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule US Navy

Cables, are they insulated and protected as per Rule USN, if otherwise than as per Rule are they of an Approved Type ,
state maximum fall of pressure between bus bars and any point under maximum load none, are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets soldered 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 -- Are cables in machinery spaces, galleys, laundries, etc., lead covered impervious sheath or run in conduit --

or of the "HR" type -- State how the cables are supported or protected cable flanges, supported by metal
carriers at intervals of 18" vertical and 14" horizontal.

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

AMM

73

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule... yes... Emergency Supply, state position none

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 and fitted as per Rule... no... are they adequately ventilated... --... state battery capacity in ampere hours... --

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

Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present... no... if so, how are they protected... --

and where are the controlling switches fitted... --... Are all fittings suitably ventilated... --

Searchlight Lamps, No. of none, whether fixed or portable... --, are they of the carbon arc or of the filament type... --

Heating and Cooking, is the general construction as per Rule... USN... are the frames effectually earthed... yes... are heaters in the accommodation of the convection type... none... 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, USN rules

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... --

Control Gear and Resistances, are they constructed and fitted as per Rule... USN... Lightning Conductors, where required are they fitted as per Rule... USN

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

E.S.D., if fitted state maker... none... location of transmitter... -- and receiver... --

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			PRIME MOVER.		
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	2	Westinghouse	100	450	161	1200	diesel	General Motors
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area of No. and Dia. of Strands C.A.M. Sq. ins. or sq. mm.	In the Circuit.	USN			
MAIN GENERATOR ... AC.	100	1	124,900	161	185	30'	A.V.C.	Imp. sheath armoured
" " EQUALISER ...								
" " DC	20	1	99,060	166	182	30'	"	" " " "
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR...								

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

DESCRIPTION.								
Power panel engine room	F422	1	30,860	48.2	77	40'	A.V.C.	Imp. sheath armoured
" " ventilation	F423	1	14,340	41.9	47	60'	"	" " " "
" " bow door	F424 & 5	1	14,340	47.3	47	110'	"	" " " "
" " Galley	F426	1	30,860	75.5	77	50'	"	" " " "
" " Forward deck winch	F427	1	22,800	54.8	64	60'	"	" " " "
Shore connection box	F0403	1	49,080	100	101	70'	"	" " " "
Vital power panel	F432 & 3	1	4,497	8.4	17	40'	"	" " " "
Ltg. transformers	450V F0407	1	22,800	57.6	64	50'	"	" " " "
" " 117V	F0107	1	198,700	222	750	50'	"	" " " "
Power panel misc.aux.	F132	1	22,800	64	64	60'	"	" " " "
Steering gear	F151 & 2	1	9,016	18.5	41	80'	"	" " " "

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.		CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area of No. and Dia. of Strands C.A.M. Sq. ins. or sq. mm.	In the Circuit.	USN			
Lighting panel	F100	1	9,016	25	36	15'	AVC	Imp. sheath armoured
" "	F101	1	9,016	25	36	45'	"	" " " "
" "	F102	1	22,800	25	64	20'	"	" " " "
" "	F103	1	22,800	25	64	75'	"	" " " "
" "	F104	1	4,497	12	17	70'	"	" " " "
I.C. Panel	F131	1	9,016	21	36	40'	"	" " " "
Prop.diesel clutch & brake	F135&6	1	2,828	2	12	50'	"	" " " "
Galley range		1	9,016	26.3	36	40'	"	" " " "
" "		1	4,497	11.4	17	40'	"	" " " "
Ship's service battery charger	F24	1	4,497	15	20	40'	"	" " " "
Radio	F154	1	22,800	70	72	80'	"	" " " "

MOTOR CABLES.

* ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Steering gear motor	1	7	1	9016	10.5	41	20	AVC Imp. sheath armoured
#1&2 fire&flushing pumps	2	25	1	9016	32.5	36	50	" " " "
Ballast pump	1	30	1	14340	40.3	47	40	" " " "
#1&2 compressor	1	7.5	1	4497	11	17	40	" " " "
Bow doors	1	5	1	2828	7.1	10	60	" " " "
Bow ramp	1	15	1	9016	19.1	36	40	" " " "
#1&2 L.O.service pumps	2	2	1	2828	2.8	10	40	" " " "
L.O. transfer pump	1	2	1	2828	2.8	10	40	" " " "
#1&2 Refrig.comp.	2	2	1	2828	3.1	10	30	" " " "
#1&2 F.W. pumps	2	3	1	2828	3.98	10	40	" " " "
L.O. purifier	1	1.5	1	2828	2.24	10	40	" " " "
F.O. purifier	1	1.5	1	2828	2.24	10	40	" " " "
F.O. transfer pump	1	2	1	2828	2.84	10	40	" " " "
F.W. priming pump	1	.75	1	2828	1.5	10	40	" " " "
Anchor windlass	1	30	1	30860	42	64	30	" " " "

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.
 All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.
 The foregoing is a correct description.

Wade Dry Dock Corp John Noe Supt Electrical Contractors. Date.....

COMPASSES.

Have the compasses been adjusted under working conditions.....

Wade Dry Dock Corp John Noe Supt Builder's Signature. Date.....

Have the foregoing descriptions and schedules been verified and found correct..... yes

Is this installation a duplicate of a previous case..... If so, state name of vessel.....

Plans. Are approved plans forwarded herewith..... no If not, state date of approval.....

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith..... no

General Remarks. (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.).....

This electrical installation is to the Standard of the United States Navy and has been in operation since 1944. The dimensions in this report have been checked, so far as possible on the vessel and found correct. The materials and workmanship are good and the installation has been examined and tested as required by the Society's Rules and modified as required by the New York office letters and found to be satisfactory.

In my opinion the electrical installation is such as could be accepted by the Committee for Classification subject to replacement of breaker trip units as soon as available by the manufacturer.

Total Capacity of Generators..... 200 Kilowatts.

The amount of Fee ...	£	} <i>To be notified later</i>	When applied for,
			When received,
Travelling Expenses (if any) £	:		19.....

Fred H. Hallbauer
 Surveyor to Lloyd's Register of Shipping.
 Fred H. Hallbauer

NEW YORK DEC 20 1961

Committee's Minute.....

Assigned..... *See Item 368*

2m 0.48.—Transfo.: (MADE AND PRINTED IN ENGLAND.)
 (This Surveijors are requested not to write on or below the space for Committee's Minute.)