

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

27 OCT 1947

Date of writing Report Sept. 26, 1947 When handed in at Local Office Sept. 26, 1947 Port of Newport News, Va.
 No. in Survey held at Newport News, Va. Date, First Survey _____ Last Survey _____
 Reg. Book. _____
 79685. on the M/V "NUEVA ANDALUCIA" (Number of Visits.....)
 Tons { Gross 10,044
 Net 5786.
 Built at Hamburg By whom built Deutsche Werft A.G. Yard No. _____ When built 1925
 Owners The Texas Co., (Norway) A/S Port belonging to Oslo.
 Electric Light Installation fitted by _____ Contract No. _____ When fitted _____
 Is the Vessel fitted for carrying Petroleum in bulk Yes.

System of Distribution Two wires

Pressure of supply for Lighting 115 volts, Heating _____ volts, Power 115 volts.

Direct or Alternating Current, Lighting D.C. Power D.C.

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 temperature rise A.I.E.E. Standards, are they compound wound Yes

are they over compounded 5 per cent. No., 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

Have certificates of test results for machines under 100 kw. been submitted and approved Yes Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing --

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 Engine Room - Tank Top port side.

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 None 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 Engine room floor plate port fore

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 None 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.

is it of an approved type 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 --, is the non-hygroscopic insulating material of an approved

type --, 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, temperature rise of

omnibus bars Yes, individual fuses to voltmeter, pilot or earth lamp Yes, are moving parts of switches alive in the

"off" position No are all screws and nuts securing connections effectively locked Yes are any fuses fitted on the live side of

switches No. Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

Two pole linked circuit breakers for each generator with overload trips and outgoing

circuits two pole switches and fuses.

Are turbine driven generators fitted with emergency trip switch as per rule _____ Are cupboards or compartments containing switchboards composed of

fire-resisting material or ~~wood with approved material~~ Yes Instruments on main switchboard 3 ammeters 3

voltmeters No. synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

Switches, Circuit Breakers and Fusible Cut-outs, A.I.E.E. Standards

do these comply with the requirements of the Rules Yes are the fusible cutouts of an approved type -- have the reversed

current protection devices been tested under working conditions - 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, V, X or XI of the Rules - A.I.E.E. Standards

If the cables are insulated otherwise than as per Rule, are they of an approved type 1 Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load

Cable Sockets, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets Yes Paper Insulated and Varnished Cambric Insulated Cables.

If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound - or waterproof insulating tape - Cable Runs, are the cables sized 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 Are cables in machinery spaces, galleys, lavatories, bathrooms and lavatories lead covered or otherwise Yes.

Support and Protection of Cables, state how the cables are supported and protected Mounted on deck & bulkheads with metal, hangers, protected B.T. armour shielding, circuit breakers, etc.

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. A.I.E.E. St

Refrigerated Chambers, are the cables and fittings in accordance with the special requirements W.T. equipment.

Joints in Cables, state if any, and how made, insulated, and protected W.T. connection boxes with bolted lug fittings.

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 - state the material of which the bushes are made -

Earthing Connections, state what earthing connections are fitted and their respective sectional areas Cables effectively earthed.

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 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 No.

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected Switch in midship house explosion proof lights. how are the cables led

Cables run outside spaces and enclosed in metal conduit.

where are the controlling switches situated One flame proof switch outside pump room door.

are all fittings suitably ventilated Yes, are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials Yes.

Heating and Cooking Appliances, are they constructed and fitted as per Rule Yes, are air heaters constructed and fitted as per Rule -

Searchlight Lamps, No. of 1-18" inc., whether fixed or portable fixed, are their fittings as per Rule Yes

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 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 - if not of this type, state distance of the combustible material horizontally or vertically above the motors - and -

have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing - 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 - 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 all fuses of the filled cartridge type Yes are they of an approved type Yes.

If portable lamps for use in dangerous spaces are supplied, are they of a self-contained, battery-fed type approved by the Home Office None

Spare Gear, if the vessel is for open sea service have spares been supplied as per Rule 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	55	115	478	400	Diesel engine	Diesel Oil	Above 150° F.	
AUXILIARY	1	35	115	308	400	Steam engine.			
EMERGENCY									
ROTARY TRANSFORMER									

GENERATOR, LIGHTING AND HEATING CONDUCTORS.									
DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	MTS.	Circuit.	Amps.			
MAIN GENERATOR	2	450,000	37	110.3	478	690	100	Rubber	L.C. & Basket Weave
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR	2	212,000	19	105.5	308	418	65	Rubber	Mag. Cir. Bkr.
EMERGENCY GENERATOR									
ROTARY TRANSFORMER									
ENGINE ROOM									
BOILER ROOM									
AUXILIARY SWITCHBOARDS									
Runn Light Panel	1	16,500	7	48.6	15	31	780	Rubber	Mag. S.W.
Power Pan-Eng. Rm. P	1	212,000	19	105.5	160	160	130	Rubber	Fuse
Power Pan-Eng. Rm. S	1	212,000	19	105.5	160	160	190	Rubber	"
Bower Pan-Mach. Shop	1	33,100	7	68.8	40	48.5	65	Rubber	"
ACCOMMODATION									
Ltg. Panels-Amid. House	1	168,000	19	94.0	160	179	740	Rubber	Fuse
" " Aft. "	1	106,000	19	74.5	100	132	290	Rubber	Fuse.
"	1								
WIRELESS	1	66400	7	97.4	60	74	780	Rubber	Fuse
SEARCHLIGHT	1	4110	7	24.2	10	15	100	Rubber	Fuse
MASTHEAD LIGHT	1	4110	7	24.2	1	15	480	Rubber	Fuse
SIDE LIGHTS	1	4110	7	24.2	1	15	120	Rubber	Fuse
COMPASS LIGHTS	1	4110	7	24.2	1	15	60	Rubber	Fuse
POOP LIGHTS									
CARGO LIGHTS	1	4110	7	24.2	5	15	280	Rubber	Fuse
ARC LAMPS									
HEATERS	1	65.30	7	30.5	10	16.5	40	Rubber	Fuse.

MOTOR CONDUCTORS.									
DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with
		No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Amps.		
BALLAST PUMP									
MAIN BILGE LINE PUMPS									
GENERAL SERVICE PUMP									
EMERGENCY BILGE PUMP									
SANITARY PUMP	1	1	10400	7	38.5	16	25	90	Rubber
CIRC. SEA WATER PUMPS									
CIRC. FRESH WATER PUMPS	2	1	20800	7	54.5	55	35	100	Rubber
AIR COMPRESSOR									
FRESH WATER PUMP	1	1	10400	7	38.5	16	25	30	Rubber
ENGINE TURNING GEAR	2	1	106000	19	74.5	64	100	120	Rubber
ENGINE REVERSING GEAR									
LUBRICATING OIL PUMPS									
OIL FUEL TRANSFER PUMP									
WINDLASS									
WINCHES, FORWARD									
WINCHES, AFT									
STEERING GEAR—									
(a) MOTOR GENERATOR	1	1	212000	19	105.5	156	160	340	Rubber
(b) MAIN MOTOR									
WORKSHOP MOTOR	1	1	4110	7	24.2	6	15	60	Rubber
VENTILATING FANS	1	1	4110	7	24.2	6	15	80	Rubber

All Conductors are of annealed copper conforming to British Standard Specification No. 7 (or International Electro-technical Commission Publication No. 28).

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass

Distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying Ampères feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass 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

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted

The maximum deviation due to electric currents was found to be degrees on course in the case of the standard compass, and degrees on course in the case of the steering compass.

Builder's Signature.

Date

Is this installation a duplicate of a previous case Yes If so, state name of vessel "NUEVA GRANADA"

General Remarks (State quality of workmanship, opinions as to class, etc. The workmanship is good and complete, tested and proven in good working order and in accordance with drawings submitted.)

Total Capacity of Generators 90 Kilowatts.

The amount of Fee ... \$130 : When applied for, 19/4/19 47
Travelling Expenses (if any) \$ 20.00 : When received, 10/5/19 47.

Committee's Minute NEW YORK OCT 1 - 1947

Assigned Transmit to London



© 2020

Lloyd's Register
Foundation