

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report May 7th 1953 When handed in at Local Office _____ 19____ Port of NEW YORK.

No. in Survey held at Quincy, Mass. Date, First Survey Feb. 10th Last Survey May 6th 1953.
Reg. Book. _____ (No. of Visits cond.)

on the steel screw steamer "ANDROS ISLAND" Tons { Gross 18,735.
Net 11,652.

Built at Quincy, Mass. By whom built Bethlehem Steel Co. Yard No. 1631. When built 1953.

Owners Rio Venturado Compania Nav. Port belonging to Panama, R.P.

Installation fitted by Bethlehem Steel Co. When fitted 1953.

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. _____ Radgr Yes.

Plans, have they been submitted and approved Yes. System of Distribution 3 phase, 3 wire for power + lighting feeders
Voltage of Lighting 117

Cooking 230 Power 450 D.C. or A.C., Lighting A.C. Power A.C. If A.C. state frequency 60 cycles.
Heating _____

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 Yes. Generators, are they compound wound _____, and level compounded under working conditions _____

if not compound wound state distance between generators _____ and from switchboard _____ Are the generators arranged to run

in parallel Yes. Exciter field regulators provided Yes. Is the compound winding connected to the negative or positive pole Yes, to A.I.E.E. standards

_____ Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing _____ Have certificates of

test for machines under 100 kw. been supplied _____ and the results found as per Rule _____

Position of Generators After end of engine room, on 20'-6" flat.

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 star'd side 20'-6"

flat at after end of 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 Dead front, grounded. if of synthetic insulating

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 Three pole circuit breaker with overload and

reverse power trips

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Two & Three pole (thermal overload

and magnetic short circuit) circuit breakers.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes. Instruments on main switchboard two.

ammeters two voltmeters one synchronising devices. For compound machines in parallel are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection _____ Earth Testing, state means provided ground,

detecting lamps.

Switches, Circuit Breakers and Fuses, are they as per Rule A.I.E.E. standards, are the fuses an Approved Type _____

make of fuses std. NEC Fuses. are all fuses labelled Yes. If circuit breakers are provided for the generators, at what

overload do they operate 825 amps. and at what power current do the reversed current protective devices operate 20 kW.

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule A.I.E.E. standards

Cables, are they insulated and protected as per Rule _____, 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 within rule requirements, are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets Yes. 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 Yes. or run in conduit _____

or of the "HR" type _____ State how the cables are supported or protected in brass pipe on fore & after

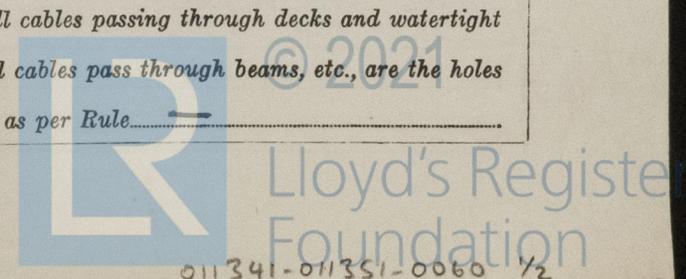
walkway, clipped to joiner work in quarters & on steel hangers in

machinery spaces

Are all lead sheaths, armoring 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 _____ Refrigerated chambers, are the cables and fittings as per Rule _____



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule Yes Emergency Supply, state position after end of engine room on 32'-6" flat, starboard side

Navigation Lamps, are they separately wired Yes controlled by separate double pole switches and fuses. A.I.E.E. standards 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 -, 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 Pump room lighted by fittings located & wired in engine room and where are the controlling switches fitted main board Are all fittings suitably ventilated Yes.

Searchlight Lamps, No. of one, whether fixed or portable fixed are they of the carbon arc or of the filament type filament A.I.E.E. standards

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 A.I.E.E. standards

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 A.I.E.E. stand. Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule A.I.E.E. stand.

Control Gear and Resistances, are they constructed and fitted as per Rule - Lightning Conductors, where required are they fitted as per Rule - 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 Yes, are all fuses of an Approved Cartridge Type Yes, make of fuse std. NEC fuses. Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships Yes. Are the cables lead covered as per Rule Yes. E.S.D., if fitted state maker Bludworth location of transmitter at frame 49 1/2 starboard and receiver at frame 49 1/2 port.

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.	Amps.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	2.		400	450	641	1200	Turbine	Westinghouse
EMERGENCY ...	1.		75	450	120	1200	Diesel	Cummings Diesel
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 or Nominal Size of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ...	400	3	7068	641	837	66	V.C.	lead & basket weave Armoured
" " EQUALISER ...								
EMERGENCY GENERATOR ...	75	1	1045	120	158	50		do
ROTARY TRANSFORMER: MOTOR	7.5	1	0051	10.5	22	70		
" " GENERATOR...	5	1	0206	41	55.5	66		

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

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or Nominal Size of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
Main switchboard to Fwd. switchboard	1	1045	57.6	158	850		
" " " Emerg: " P.O.1	1	1045	31.6	158	40		
Emergency " " Fwd: " E.P.O.1	1	0206	12.9	55.5	820		
Machine shop panel	P.45	0130	22.9	41	40		
Boiler room panel	P.43	0051	1.7	22	150		
Galley power "	P.44	0525	44.3	99	210		
After quarters vent panel	P.46	0130	18.3	41	90		
Machinery space " "	P.47	0521	59	99	240		
Shore connection	P.04	1659	200	217	300		

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

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			In the Circuit.	Rule.			
Upper deck Lighting	L2	1045	52.4	158	160	V.C.	lead & basket weave armoured
Poop " "	L3	0521	44.7	99	180		
Engine room "	L4	0521	45.7	99	30		
Boiler room "	L5	0521	30.0	99	210		
Midship "	L101	0521	55.8	99	110		
Forecastle "	L102	0206	5.2	55.5	420		
After quarters, Emergency Lighting	EL1	0130	11.7	41	150		
Eng. room "	EL2	0051	13.0	22	30		
" " boiler room " "	EL3	0051	8.4	22	200		
Radar.	EL102	0130	12.0	41	80		
Navigation Light panel	EL101	0082	2.6	30	90		
Radio	E.P.01	0051	4.4	22	110		- do -
Echo sounder	E.S.	0051	3.5	22	-		
Lighting transformers		0206	49.7	55.5	50		
3 galley ranges (each)		0521	69.8	99	40		
After pump room lighting	L1	0130	5.2	41	-		
Amidship emerg: "	E.L.104	0206	20.9	55.5	90		
Masterhead light		0032	5.2	11.5	360	R.I.	
Side lights		0032	5.2	11.5	70	R.I.	
Cargo lighting fwd	L103	0082	10.4	30	360		
Fold pump room	L104	0130	2.6	41	410		
Cargo Lighting aft	L105	0051	5.2	22	-		
Electric whistle control	W	0051	1.0	22	-		
Emergency generator heater	E.L.A	0051	4.3	22	50		

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	No. in Parallel per Pole.	Sectional Area or Nominal Size of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
Main cond. circ. pump	1	125	1	1659	155	217	310	V.C.	Lead & basket weave armoured.
Fg & forced draught blowers	2	83	1	1659	100	217	240		
Fire & general service pump	1	50	1	0521	59.5	99	200		
Fuel oil transfer pump	1	30	1	0521	39	99	330		
Ed. & aft lub. oil pump	2	25	1	0206	31	55.5	90		
Air compressor	1	25	1	0206	31	55.5	260		
Inbd. & outbd. main condensate	2	20	1	0130	25	41	290		
Atmos. exh. cond. circ. pump	2	20	1	0130	25	41	270		
Fd. & aft water service pumps	1	15	1	0130	20	41	250		
Inbd. & outbd. fuel oil service pumps	2	15	1	0130	20	41	360		
Bi-lge & ballast pump	1	15	1	0130	20	41	310		
Fd. & aft aux. cond. circ. pumps	2	10	1	0051	13	22	120		
" " " " condensate "	2	10	1	0051	13	22	120		
Inbd. & outbd. condensate drain "	2	7.5	1	0051	10	22	260		
Sanitary pump.	1	7.5	1	0051	10	22	140		
Refrig. compressors	2	10	1	0051	13	22	100		
Turning gear	1	7.5	1	0051	10	22	140		- do -
Comb. cont. air compressor	1	3	1	0051	7	22	270		
Distiller condensate pumps	2	3	1	0051	4.5	22	150		
Fd. & aft brine overbd. discharge..	2	3	1	0051	4.5	22	140		
" " Wash water pumps	2	3	1	0051	4.5	22	120		
Potable water pumps	2	2	1	0051	3	22	100		
Fd. & aft lub. oil purifier's	2	2	1	0051	3	22	120		
Inbd. & outbd. priming pumps.	2	1.5	1	0051	2	22	300		
Gland exhaustor	1	1	1	0051	1.6	22	160		
P+S steering gear	2	50	1	0521	64	99	270		
Shaper	1	7.5	1	0051	10	22	70		
Lathe	1	5	1	0051	7	22	60		
Grinder	1	3	1	0051	4.5	22	70		
Drill press.	1	1	1	0051	1.6	22	110		
Eng. & boiler rm. supply fans.	4	7.5	1	0051	10	22	200		
Eng. room exhaust fans.	2	5	1	0051	7	22	200		
Misc. vent. fans.	- Various		1	0051	7	22	200		

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.

M. J. Sullivan

Electrical Contractors.

Date *May 7th 1953*

COMPASSES.

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

M. J. Sullivan

Builder's Signature.

Date *May 7th 1953*

Have the foregoing descriptions and schedules been verified and found correct. *Yes.*

Is this installation a duplicate of a previous case *Yes.* If so, state name of vessel. *S/S CHRYSSI N.Y.K. 52229.*

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. *Makers letter*

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

The electrical equipment of this vessel has been built & installed under special survey in accordance with approved plans.

The materials and workmanship are good & the installation has been examined under full working conditions, tested as per Rule and found satisfactory, in my opinion is such as could be accepted for a vessel classed with this Society.

Noted all 24-6-53

Total Capacity of Generators *875* Kilowatts.

The amount of Fee ... £ : : When applied for, _____ 19 _____

Travelling Expenses (if any) £ : : When received, _____ 19 _____

W. P. Holmes

Surveyor to Lloyd's Register of Shipping.

Committee's Minute *NEW YORK MAY 20 1953*

Assigned *Elec. light.*

2m.9.46.—Transfer. (MADE AND PRINTED IN ENGLAND.)
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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