

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report **Feb. 26th 1953** When handed in at Local Office _____ 19____ Port of **Quincy, Mass.**
 No. in Survey held at **Quincy, Mass.** Date, First Survey **Dec. 19th 52** Last Survey **Mar. 4th 1953**
 Reg. Book. _____ (No. of Visits **Cont.**) _____

on the **steel screw steamer "CHRYSSI"** Tons { Gross **18,732**
 Net **11,652**
 Built at **Quincy, Mass.** By whom built **Bethlehem Steel Co.** Yard No. **1630** When built **1953**
 Owners **Santander Compania Naviera SA** Port belonging to **Panama, Republic of Panama**
 Installation fitted by **Bethlehem Steel Co. Quincy, Mass.** 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. **—** Radar **Yes**

Plans, have they been submitted and approved **Yes** System of Distribution **Three phase, three wire for power & lighting, feeders**
Two size single phase for lighting branch circuits. 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**, are **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 **A.I.E.E. standards** 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 **stard. 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 **The 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 **2.**

ammeters **2** voltmeters **1** 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 **standard 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 current do the reversed **Power** 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 **A.I.E.E. standards**, 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 **—**, 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 and**

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

in machinery spaces

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 **—** 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
Emergency generator and switchboard are situated at the after end of engine room, starboard side.

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. Yes are they adequately ventilated. Yes
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. Yes Are all fittings suitably ventilated. Yes

Searchlight Lamps, No. of 1, whether fixed or portable. Fixed 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. Yes 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. Yes

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

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

Rule. Yes 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. Standard N.E.C. 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. Blundworth location of transmitter. at frame 49 1/2 starboard and receiver. 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.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	2		400	450	641	1200	Turbine	Westinghouse
EMERGENCY ...	1		45	450	120	1200	Diesel	Cummings Diesel
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA-TION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area of No. and Dia. of Strand. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ...	400	3	7068	641	837	66	V.C.	Lead & basket weave arm.
" " EQUALISER ...								
EMERGENCY GENERATOR ...	45	1	1045	120	158	50		
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.								
Main switchboard to fwd. switchboard	1	1045	57.6	158	850			
" " " Emergency " P.O.1.	1	1045	31.6	158	40			
Emerg. " " fwd. " E.P.O.1.	1	0206	12.9	55.5	820			
Machine shop panel	P.45.	1	0130	22.9	41	40		
Boiler room panel	P.43	1	0051	1.71	22	150		
Galley power "	P.44	1	0524	44.3	99	210		
After quarters vent. panel	P.46	1	0130	18.3	41	90		
Machinery space	P.47	1	0521	59	99	240		
Shore connection	P.O.4	1	1659	200	217	300		

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

DESCRIPTION.	No. in Parallel per Pole.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA-TION.	PROTECTIVE COVERING.
		Sectional Area of No. and Dia. of Strand. Sq. ins. or sq. mm.	In the Circuit.	Rule.	Rule.			
Upper deck lighting	42	1	1045	52.4	158	160	V.C.	Lead & basket weave armoured.
Loop " "	43	1	0521	44.7	99	180	"	
Engine room "	44	1	0521	45.7	99	30		
Boiler " "	45	1	0521	30.0	99	210		
Midship " "	4101.	1	0521	55.8	99	110		
Forecastle " "	4102	1	0206	5.2	55.5	420		
After quarters emerg. lighting	EL.1.	1	0130	11.7	41	150		
Engine room " "	EL.2	1	0051	13.0	22	30		
" " & Boiler room. " "	EL.3.	1	0051	8.4	22	200		
Radar	EL.102.	1	0130	12.0	41	80		
Navigation light panel	EL.101.	1	0082	2.6	30	90		
Radio	E.P.101.	1	0051	4.4	22	110		
Echo sounder	E.S.	1	0051	3.5	22	-		
Lighting transformers		1	0206	49.7	55.5	50		
3 galley ranges (each)		1	0521	69.8	99	40		
After pump room lighting	L.1.	1	0130	5.2	41	-		
Midship emerg. lighting	EL.104	1	0206	20.9	55.5	90		
Masthead light		1	0032	5.2	11.5	360	R.I.	
Side lights		1	0032	5.2	11.5	70	R.I.	
Cargo lighting fwd.	L.103	1	0082	10.4	30	360		
Fwd. pump room	L.104.	1	0130	2.6	41	410	V.C.	
Cargo lighting aft.	L.105.	1	0051	5.2	22	-		
Electric whistle control	W.	1	0051	1.0	22	-		
Emergency gen. heaters	E.L.4.	1	0051	4.3	22	50		

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Main cond. cir. pump	1	125	1	1659	155	217	310	
P & S forced draught blower (each)	2	83	1	1659	100	217	240	
Fire & gen. service pump	1	50	1	0521	59.5	99	200	
Fuel oil transfer "	1	30	1	0521	39	99	330	
Fd. & aft. lub. oil service " (each)	2	25	1	0206	31	55.5	90	
Air compressor	1	25	1	0206	31	55.5	260	
Ind. & outd. main condensate (each)	2	20	1	0130	25	41	290	
Remos. ex. cond. circ. pump	1	20	1	0130	25	41	270	
Fd. & aft. water service pumps (each)	2	15	1	0130	20	41	250	
Ind. & outd. fuel oil service " (each)	2	15	1	0130	20	41	360	
Bilge & ballast pumps	1	15	1	0130	20	41	310	
Fd. & aft. aux. cond. circ. pumps (ea)	2	10	1	0051	13	22	120	
" " " " condensate " (each)	2	10	1	0051	13	22	120	
Ind. & outd. condensate drain (each)	2	7.5	1	0051	10	22	260	
Sanitary pump	1	7.5	1	0051	10	22	240	
Refrig. compressors (each)	2	10	1	0051	13	22	100	
Turning gear	1	7.5	1	0051	10	22	140	
Comb. cont. air compressor	1	3	1	0051	7	22	270	
Distiller cond. pumps (each)	2	3	1	0051	4.5	22	150	
Fd. & aft. brine over'd. disch. (ea)	2	3	1	0051	4.5	22	140	
" " " wash water pumps (ea)	2	3	1	0051	4.5	22	120	
Potable water pumps	2	2	1	0051	3	22	100	
Fd. & aft. lub. oil purifier (each)	2	2	1	0051	3	22	120	
Ind. & outd. priming pumps (ea)	2	1.5	1	0051	2	22	300	
Steam 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. rm & boiler rm. supply fans (ea)	4	7.5	1	0051	10	22	200	
Eng. rm exhaust fans (each)	2	5	1	0051	7	22	200	
Misc. vent fans	-	Various	1	0051	7	22	200	

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A. I. E. E.

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 *Mar 10, 1953*

COMPASSES.

Have the compasses been adjusted under working conditions.

M. J. Sullivan

Builder's Signature.

Date *Mar 10, 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. *Faialaika*

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. *Maker's letter*

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

The electrical equipment of this ship has been installed under Special Survey in accordance with the approved plans.

The materials and workmanship are good and 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.

Total Capacity of Generators. *875.* Kilowatts.

The amount of Fee ... *\$600 -*

TESTING GENERATORS (PITTS/L) *100.*

Travelling Expenses (if any) £ *✓*

When applied for,

26.3 19*53*

When received,

19

W. P. Holmes

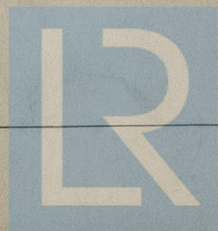
Surveyor to Lloyd's Register of Shipping.

Committee's Minute.

Assigned

Elec. light

NEW YORK MAR 25 1953



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