

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office - 8 JUN 1934

Date of writing Report 24th May 1934. When handed in at Local Office

Port of HAMBURG

No. in Survey held at MENDEL & HAMBURG Date, First Survey 29th Jan. 1934 Last Survey 19th May 1934
Reg. Book. (Number of Visits 5)

on the Steel Sc. "CARIPITENO"

Tons { Gross 475
Net 225

Built at MENDEL By whom built SCHIFFSWERFT MENDEL LINDENAU & CIE Yard No. 53 When built late 1914

Owners STANDARD OIL CO. OF VENEZUELA Port belonging to CRISTOBAL COLON

Electric Light Installation fitted by SCHIFFSWERFT MENDEL Contract No. - When fitted 1934

System of Distribution Two-wire with direct current - insulated ✓ volts, Power 220 ✓ volts.

Pressure of supply for Lighting 110 Volts ✓ volts, Heating - Power direct ✓

Direct or Alternating Current, Lighting direct ✓

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 rating yes ✓, are they compound wound yes ✓

are they over compounded 5 per cent. yes ✓, 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 ✓

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 Main Engine Room forward. ✓

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

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 Main Engine Room - Port Side.

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. and ✓

are they constructed wholly of durable, non-ignitable non-absorbent materials. marble ✓, is all insulation of high dielectric strength and of

permanently high insulation resistance yes ✓, if semi-insulating material is used, are all conducting parts insulated from the slab

with mica or micamite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework yes ✓

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 ✓, proportion of omnibus

bars yes ✓, individual fuses to voltmeter, pilot or earth lamp. yes ✓, connections of switches. yes ✓

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches. For each Generator:

A fuse on each pole and a double pole linked switch. For each outgoing circuit:

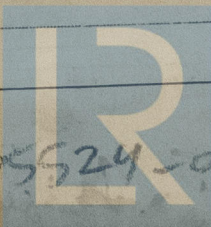
A fuse on each pole and single pole change over switch. ✓

Instruments on main switchboard 3 ammeters 3 voltmeters - synchronising device for paralleling purposes.

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

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules yes ✓

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule yes ✓



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The German Standards have been applied generally

Cables: Single, twin, concentric, or multicore *twin* are the cables insulated and protected as per Tables IV or V of the Rules. *applied generally*

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *2 1/2 lbs*

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets *yes*

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound *no paper insulated*

Cable Runs, are the cables fixed 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*

Support and Protection of Cables, state how the cables are supported and protected *armoured cables clipped*

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*

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements *yes*

Joints in Cables, state if any, and how made, insulated, and protected *waterlight joint boxes*

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 *yes* state the material of which the bushes are made *hard wood*

Earthing Connections, state what earthing connections are fitted and their respective sectional areas *are their connections made as per Rule*

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 *Secondary Battery*

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 *yes*

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and where or 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 *no*, how are the cables led *yes*

where are the controlling switches situated *yes*

Searchlight Lamps, No. of *1*, whether fixed or portable *fixed*, are their fittings as per Rule *yes*

Arc Lamps, other than searchlight lamps, No. of *0*, are their live parts insulated from the frame or case *yes*, are their fittings as per Rule *yes*

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 *yes*, if not of this type, state distance of the combustible material horizontally or vertically above the motors *no*

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 *yes*

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*

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office *yes*

PARTICULARS OF GENERATING PLANT.									
DESCRIPTION OF GENERATOR.	No. of	RATED AT			DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.		Insulated with	HOW PROTECTED.
		Kilowatts.	Volts.	Amperes.		Fuel Used.	Flash Point of Fuel.		
MAIN	1	24	230	104	450	Oil	170° F		
AUXILIARY	1	16	230	69.5	450	Oil			
EMERGENCY	1	5kw	120	42					
ROTARY TRANSFORMER									

LIGHTING AND HEATING CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.)	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	2	70	37	1.55	104	2x.6u.		
	EQUALISER CONNECTIONS	2	50	19	1.83	69.5	2x.8u.		
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM							rubber	lead covered and armoured.
	BOILER ROOM								
	ACCOMMODATION								
	Main deck.	1	2.5	1	1.78	15	2x.16		
	Bridge deck.	1	2.5	1	1.78	15	2x.18		
	Navigation	1	2.5	1	1.78	10	2x.10		
	Chart room	1	2.5	1	1.78	10	2x.10		
	WIRELESS	1	1.5	1	1.38	8	2x.1		
	SEARCHLIGHT	1	2.5	1	1.78	10	2x.18		
	MASTHEAD LIGHT...	1	1.5	1	1.38	1	2x.1.5		
	SIDE LIGHTS...	1	1.5	1	1.38	1	2x.1		
	COMPASS LIGHTS...	1	1.5	1	1.38	0.5	2x.5		
	POOP LIGHTS	1	1.5	1	1.38	0.5	2x.5		
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.)	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP	1	4	19	0.52	24	2x.8		
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP	1	4	19	0.52	12.7	2x.7		
	ENGINE TURNING GEAR							rubber	lead covered and armoured.
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP								
	WINDLASS	1	16	19	1.04	53	2x.20		
	WINCHES, FORWARD	1	10	19	0.82	53	2x.10		
	WINCHES, AFT	1	10	19	0.82	44	2x.17		
	STEERING GEAR								
	(a) MOTOR GENERATOR...								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR								
	VENTILATING FANS								
	Refr. Compressor	1	10	19	0.82	23	2x.5		

All Conductors are of annealed copper conforming to British Standard Specification No. 7.

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

The foregoing is a correct description.

The Guilders are the

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators ~~or motors~~ and standard compass

15^m

Ins. conductor insulated system.

Distance between electric generators ~~or motors~~ and steering compass

9^m

The nearest cables to the compasses are as follows:—

A cable carrying 0.25 Amperes ~~close to~~ feet from standard compass ~~close to~~ feet from steering compass.

A cable carrying — Amperes — feet from standard compass — feet from steering compass.

A cable carrying — Amperes — feet from standard compass — feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power

yes

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

yes

The maximum deviation due to electric currents was found to be

nil

degrees on

course in the case of the standard

compass, and nil degrees on

course in the case of the steering compass.

SCHIFFSWERFT MEMEL

Kindler & Co.

Builder's Signature.

Date

2nd June 1934.

Is this installation a duplicate of a previous case

no

If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

Material and workmanship

of this Electric Installation are of good quality. As the conductors used are of the German Standards, the Society's Rules respecting conductors have been applied generally. The installation has been fitted in accordance with the approved plans, the Secretary's letter and otherwise in compliance with the requirements of the Rules. It has given full satisfaction under working conditions and is eligible in my opinion for the notation 'ELECT. LIGHT' in the Reg. Pl.

Noted

25/6/34.

Total Capacity of Generators

40

Kilowatts.

The amount of Fee

Ham. £44-10-0
Syn. £30-0-0

47:10

When applied for,

30-5-1934

When received,

10-12-1934

Travelling Expenses (if any) £

Committee's Minute

FRI. 12 JUL 1935

Assigned

See F.C. Rep.



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