

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 14 SEP 1936

Date of writing Report 9/9/1936 When handed in at Local Office 11/9/1936 Port of TRIESTE

No. in Survey held at Monfalcone Date, First Survey July 20th Last Survey Sep 3rd 1936

Reg. Book. 84/82 on the M.V. Solarium

(Number of Visits... many) Tons { Gross 6239 Net 3651

Built at Monfalcone By whom built Cant. Raim. dell'Edr. Yard No. 1136 When built 1936

Owners Anglo Saxon Petroleum Co Port belonging to London

Electric Light Installation fitted by Officine Elettromeccaniche Contract No. When fitted 1936

System of Distribution 2 wires

Pressure of supply for Lighting 110 volts, Heating — volts, Power 110 volts.

Direct or Alternating Current, Lighting Direct Power 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 B.P. platform starboard 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

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 near generators

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 yes asbestos Comp., is all insulation of high dielectric strength and of permanently high insulation resistance yes

with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework —

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 Double pole

change over link switch for generators and for all outgoing circuits with fuse to each pole

Instruments on main switchboard 2 ammeters 2 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 Lamps

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

Cables: Single, twin, concentric, or multicore *single twin* the cables insulated and protected as per Tables IV or V of the Rules *yes*
Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load —

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 *none*

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, uplakes 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 *Lead covered or lead covered and steel braided. In tube on deck and dangerous space*
If cables are run in rood casings, are the casings and caps secured by screws —, are the cap screws of brass —, are the cables run in separate grooves —. 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 *gas tight junction 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 *lead*

Earthing Connections, state what earthing connections are fitted and their respective sectional areas —

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 *yes*

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 *tubes*

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *gas tight lamps with cable in gas tight tubing* how are the cables led

where are the controlling switches situated *outside of space*

Searchlight Lamps, No. of *one*, whether fixed or portable *portable*, 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 *drip proof*, if not of this type, state distance of the combustible material horizontally or vertically above the motors — and —

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.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	16	110	145	390	One by Home Eng.	Gas oil	
AUXILIARY						One by Home Eng.	Gas oil	
EMERGENCY								
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.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
122	MAIN GENERATOR...	1	95	37	1.82	145	120	rubber	Lead covered & steel braided.
	EQUALISE CONNECTIONS								
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
4	ENGINE ROOM	1	10	7	1.4	33	150	rubber	Lead covered & steel braided.
	BOILER ROOM								
	ACCOMMODATION								
4	From B to B1, 2, 3, 4, 5, 6	1	2.5	1	1.8	5.5	80	"	"
5	Connecting Box C	1	16	7	1.7	24	150	"	"
	From C to C1, 2, 3, 4, 5	1	2.5	1	1.8	6	180	"	"
6	Connecting Box D	1	35	19	1.5	42	1450	"	"
	From D to D1, 2, 3, 4	1	2.5	1	1.8	6	30	"	"
	From D to F	1	10	7	1.4	21	50	"	"
7	Navigation Box G	1	10	7	1.4	6	500	"	"
	From G to H	1	10	7	1.4	2	60	"	"
11	Connecting Box S	1	10	7	1.4	17	150	"	"
	From S to S1, 2, 3, 4	1	10	7	1.4	4.10	75	"	"
8	WIRELESS	1	25	19	1.3	30	700	"	"
9	SEARCHLIGHT	1	70	37	1.6	80	900	"	"
7H	MASTHEAD LIGHT...	1	1.5	1	1.4	0.5		"	"
7H	SIDE LIGHTS	1	1.5	1	1.4	0.3		"	"
7H	COMPASS LIGHTS	1	1.5	1	1.4	0.15		"	"
7H	POOP LIGHTS	1	1.5	1	1.4	0.3		"	"
	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.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP								
	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								
14	ENGINE TURNING GEAR	1	70	37	1.6	100	100	rubber	Lead covered & steel braided.
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	(a) MOTOR GENERATOR...								
	(b) MAIN MOTOR								
12	WORKSHOP MOTOR	6	50	19	1.85	104	230	rubber	Lead covered & steel braided.
	VENTILATING FANS								
10	Fore Ship A1, 2	1	16	7	1.7	9	400	"	"
3	Storeroom Connection	1	95	37	1.82	145	—	"	"

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005512-005517-004526

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.

Office Electrical Engineers

W. R. de la Haye

Electrical Engineers.

Date *10 Nov 1936*

COMPASSES.

Distance between electric generators or motors and standard compass } *250'*
Distance between electric generators or motors and steering compass }

The nearest cables to the compasses are as follows:—

A cable carrying *20* Ampères *16* feet from standard compass *14* feet from steering compass.

A cable carrying *2* Ampères *6* feet from standard compass *6* 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 *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 *none* degrees on course in the case of the standard compass, and degrees on course in the case of the steering compass.

CANTIERI RIUNITI DELL'ADRIATICO

J. M.

Builder's Signature.

Date *10 Nov 1936*

Is this installation a duplicate of a previous case *yes* If so, state name of vessel *Cauris*

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

This electric installation has been made in accordance with the Rules and approved plans. The material and workmanship are good. The insulation resistance has been measured in accordance with Section 17 of the Rules for Electrical Equipment and found in order.

Noted

Ym

15.9.36

Total Capacity of Generators *32* Kilowatts.

The amount of Fee ... *£ 2128* When applied for, *8/9/36*

Travelling Expenses (if any) *✓* : *12-10-36* When received, *13/10*

R. J. J. J.
Surveyor to Lloyd's Register of Shipping

Committee's Minute *RI. 18 SEP 1936*

Assigned *see J. 11375*

Im. 238.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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